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UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
OAKLAND DIVISION

REARDEN LLC, REARDEN MOVA LLC,
California limited liability companies,
Plaintiffs,

v.

DISNEY ENTERPRISES, INC., a Delaware
corporation, DISNEY STUDIO PRODUCTION
SERVICES CO., LLC f/k/a WALT DISNEY
PICTURES PRODUCTION, LLC, a California
limited liability company, WALT DISNEY
PICTURES, a California corporation,
MARVEL STUDIOS, LLC, a Delaware limited
liability company, MVL PRODUCTIONS LLC,
a Delaware limited liability company, CHIP
PICTURES, INC., a California corporation,
INFINITY PRODUCTIONS LLC, a Delaware
limited liability company, ASSEMBLED
PRODUCTIONS II LLC, a Delaware limited
liability company.

Defendants.

No. 4:17-cv-04006-JST

**SECOND AMENDED COMPLAINT
FOR COPYRIGHT AND
TRADEMARK INFRINGEMENT**

DEMAND FOR JURY TRIAL,

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1 Plaintiffs Rearden LLC and Rearden Mova LLC (collectively “Plaintiffs”), through their
 2 attorneys and for their claims against defendants Disney Enterprises, Inc., Disney Production
 3 Services Co., LLC f/k/a Walt Disney Pictures Production, LLC, Walt Disney Pictures, Chip Pictures,
 4 Inc., Marvel Studios, LLC, MVL Film Finance LLC, Infinity Productions LLC, and Assembled
 5 Productions II LLC (collectively “Defendants”), allege as follows.

6 I. INTRODUCTION

7 “There have been a lot of great CG [computer graphics] performances,
 8 but [the Beast] was a romantic hero, someone who was at the
 9 emotional center of the movie. I always said that we could get
 everything else in this movie right, but if we didn’t get a Beast that
 people believed in then [the movie] wouldn’t work.”¹

– Bill Condon, Director, *Beauty and the Beast*

10 1. Disney’s *Beauty and the Beast* opened on March 17, 2017, to an astonishing \$170
 11 million in North America and \$350 million globally, establishing numerous box-office records. It
 12 became the top film opening of all time for a PG-rated film, both domestically *and* internationally. It
 13 was the seventh largest opening for a film of any rating in North America. And it is now the highest
 14 grossing PG-rated film of all time, earning over \$500 million domestically and \$1.25 billion
 15 worldwide. *Beauty and the Beast* is the tenth highest grossing movie of any rating of all time.²

16 2. The film’s romantic hero, the Beast, was a CG (computer graphics) character played
 17 by actor Dan Stevens, with every human subtlety of his facial performance carried through to the
 18 animal-like CG face of the Beast by an innovative Oscar-winning visual effects (“VFX”) technology
 19 called Contour Reality Capture, but generally referred-to by defendants as “MOVA.” Stevens
 20 described how Contour was used:

21 The facial capture [for the Beast] was done separately using a
 22 technology called “MOVA.” So, every ten days, two weeks, I’d go into
 23 a booth and spray my face with UV paint and 27 little cameras would
 24 capture the facial expressions of all the scenes we had done on
 previous days...they would take that information and morph it onto the
 Beast, his face...

26 ¹ Truitt, Brian, “Watch the crazy way ‘Beauty and the Beast’ turned Dan Stevens into a monster,”
 27 USA Today, May 29, 2017. [https://www.usatoday.com/story/life/entertainthis/2017/05/29/exclusive-
 video-how-dan-stevens-was-transformed-in-beauty-and-the-beast/102281138/](https://www.usatoday.com/story/life/entertainthis/2017/05/29/exclusive-video-how-dan-stevens-was-transformed-in-beauty-and-the-beast/102281138/).

28 ² <http://www.boxofficemojo.com/movies/?id=beautyandthebeast2017.htm>.

1 And co-star Emma Watson (Belle) lauded Contour, saying:

2 I'm so pleased that we did it the way we did it because when you see
3 Beast on screen there is something so human about him... [Contour]
4 really captures the subtlety of Dan's facial expression and the
performance that he gives...I don't think the world has seen anything
like it before. I think it's really unique to our film.³

5 Director Bill Condon went further, expressly crediting the success of the CG Beast to the unique
6 capabilities of Contour and attributing the film's success in its entirety to it:

7 "[The Beast] was at the emotional center of the movie, who was the
8 romantic hero of the movie, who was going to be a CG character...and
it was this new process [Contour] which—you know usually its dots
9 like this [Condon points to his face] and then animators fill in the
dots—but actually captured every pore of Dan [Stevens]'s skin and
that's why so much of him, this great performance, comes through..."⁴

10 This view was affirmed by *Beauty and the Beast*'s editor, Virginia Katz:

11 "...the main concern, for me and I think for all [working on the
12 movie], was how that the Beast was going to be visualized. I mean, if
the Beast didn't work, then the film wouldn't work."⁵

13 3. But in all of the film industry and media accolades about the record-breaking success
14 of *Beauty and the Beast*, and the acclaimed cutting-edge digital Contour technology that made the
15 film's success possible, nowhere is it mentioned that the patented and copyright-protected Contour
16 technology was stolen from its inventor and developer, Rearden LLC, and its owner Rearden Mova
17 LLC. Nowhere is it mentioned that although Disney had previously contracted with Rearden LLC
18 and its controlled entities on *four previous major motion pictures* to use Contour, had entered
19 negotiation on multiple occasions with the thieves for "licensing or acquiring" the "MOVA" Contour
20 assets including "patents" and "software," and knew of a Rearden Demand Letter⁶ to one of the
21 thieves warning that he was unlawfully in possession of Rearden's facial performance capture
22 intellectual property (which it knew included "patents" and "software"), Disney nonetheless
23

24 ³ Paris Press Conference, Feb 17, 2017.

25 https://www.youtube.com/watch?v=R9mKV_gklgw&feature=youtu.be&t=12m14s.

26 ⁴ *Id.*

27 ⁵ Romanello, Linda, Post Magazine, March 1, 2017.

28 <http://www.postmagazine.com/Publications/Post-Magazine/2017/March-1-2017/Cover-Story-Disneys-i-Beauty-and-the-Beast-I.aspx>.

⁶ *Shenzhenshi, et al. v. Rearden, et al.*, NDCA Case No. 15-797, Dkt: 383, at 169.

1 contracted with the thieves to use the stolen Contour system. Nowhere is it mentioned that Disney
 2 received numerous Contour capture videos bearing Rearden’s copyright notice but continued using
 3 the copyrighted Contour software and *removed* Rearden’s copyright notice when it used the capture
 4 videos in promotional materials. And nowhere is it mentioned that *after* Rearden and Rearden Mova
 5 were in widely reported litigation against the thieves over the Contour copyrighted software, patents
 6 and MOVA and CONTOUR trademarks, Disney secretly used Contour in *Beauty and the Beast*
 7 throughout the litigation, and then prior to the film’s release, flaunted its unauthorized use of
 8 Contour as a promotional vehicle for the film. Throughout this entire time, Disney never bothered to
 9 contact its longtime Contour service provider Rearden LLC to ask any questions or to verify
 10 Disney’s authorization to use the Contour program, system, methods, trade secrets, or trademarks
 11 that Disney knew Rearden owned.

12 4. And this was not the first time. Disney contracted with the same thieves previously
 13 (after receiving the Rearden Demand Letter) to use Contour in another film, *Guardians of the*
 14 *Galaxy*, which was also highly successful. Disney falsely designated the thieves as the owners of
 15 Rearden Mova’s Contour facial capture technologies in the film’s credits, resulting in widespread
 16 industry confusion to the point where Disney’s unauthorized use of Contour in *Guardians of the*
 17 *Galaxy* was the *only* movie cited by the Academy of Motion Picture Arts and Sciences when
 18 awarding “MOVA Facial Performance Capture system”—confusing the name of the company
 19 (Rearden Mova) with the name of the technology (Contour)—a Sci-Tech Oscar:

20 “MOVA uses phosphorescent makeup applied with a sponge, strobing
 21 fluorescent lights, and an array of 32 cameras. Instead of capturing around
 22 a hundred points on the face [using conventional marker-based facial
 23 capture] MOVA creates an animated mesh with thousands of points. This
 24 offers digital recreations with all the subtle and dynamic motions
 25 performed by the actor. **You would have seen this most recently by Josh**
 26 **Brolin playing Thanos in the blockbuster *Guardians of the Galaxy*.⁷**”

27 ⁷ <https://youtu.be/F90iv9I-Sr4> and <https://www.oscars.org/sci-tech/ceremonies/2015> (emphasis
 28 added).

1 And Disney contracted with the same thieves again to use the Contour technology for the same
2 Thanos character in a sequence following the closing credits of *Avengers: Age of Ultron* used by
3 defendants Disney MPG and Marvel to promote the next *Avengers* film.

4 5. Disney used the stolen Contour systems and methods, induced, caused, and materially
5 contributed to copying of the stolen Contour software, and caused confusion in its use of the MOVA
6 mark in at least *Guardians of the Galaxy*, *Avengers: Age of Ultron*, and *Beauty and the Beast*, in
7 knowing or willfully blind violation of Rearden's intellectual property rights. This case seeks all just
8 and equitable copyright and Lanham Act remedies on behalf of the authors and owners of the
9 Contour program, the intellectual property and copyright vested therein, and the MOVA trademark
10 and goodwill: plaintiffs Rearden and Rearden Mova.

11 II. THE PARTIES

12 6. Plaintiff Rearden LLC ("Rearden") is a California limited liability company having its
13 principal place of business at 355 Bryant Street, Suite 110, San Francisco, California 94107.

14 7. Plaintiff Rearden Mova LLC ("Rearden Mova") is a California limited liability
15 company having its principal place of business at 355 Bryant Street, Suite 110, San Francisco,
16 California 94107. Rearden Mova is wholly owned by Rearden.

17 8. Defendant Disney Enterprises, Inc. ("Disney Enterprises") is a Delaware corporation
18 having its principal place of business at 500 S. Buena Vista Street, Burbank, California 91521.
19 Disney Enterprises is the sole shareholder and owner of Chip Pictures, Inc. and Walt Disney
20 Pictures.

21 9. Defendant Walt Disney Pictures ("Disney Pictures") is a California corporation
22 having its principal place of business at 500 S. Buena Vista Street, Burbank, California 91521. Walt
23 Disney Pictures is wholly owned by Disney Enterprises, and it is the owner and sole member of Walt
24 Disney Pictures Production, LLC.

25 10. Defendant Disney Studio Production Services Co., LLC. f/k/a Walt Disney Pictures
26 Production, LLC ("Disney Pictures Production") is a California corporation having its principal
27
28

1 place of business at 500 S. Buena Vista Street, Burbank, California 91521. Walt Disney Pictures is
2 the sole owner and member of Disney Pictures Production.

3 11. Defendant Chip Pictures, Inc., (“Chip Pictures”) is a California corporation having its
4 principal place of business at 500 S. Buena Vista Street, Burbank, California 91521. Disney
5 Enterprises is the sole owner and shareholder of Chip Pictures, and Chip Pictures is the alter ego of
6 Disney Enterprises. Chip Pictures is an agent of Walt Disney Pictures Production.

7 12. Defendant Marvel Studios, LLC (“Marvel”) is a Delaware limited liability company
8 having a principal place of business at 500 S. Buena Vista Street, Burbank, California, 91521. On
9 December 31, 2009, The Walt Disney Company purchased Marvel, and Marvel is indirectly wholly-
10 owned by Disney Enterprises.

11 13. Defendant MVL Productions LLC (“MVLP”) is a Delaware limited liability company
12 having a principal place of business at 500 S. Buena Vista Street, Burbank, California, 91521.
13 Marvel is the sole owner and member of MVLP.

14 14. Defendant Infinity Productions, LLC (“Infinity Productions”) is a Delaware limited
15 liability company having a principal place of business at 500 S. Buena Vista Street, Burbank,
16 California, 91521. MVLP is the sole owner and member of Infinity Productions, and Infinity
17 Productions is the alter ego of MVLP. Infinity Productions is the agent of Marvel Studios, LLC.

18 15. Defendant Assembled Productions II LLC (“Assembled Productions”) is a Delaware
19 limited liability company having a principal place of business at 500 S. Buena Vista Street, Burbank,
20 California, 91521. MVLP is the sole owner and member of Assembled Productions, and Assembled
21 Productions is the alter ego of MVLP. Assembled Productions is the agent of Marvel Studios, LLC.

22 **III. JURISDICTION AND VENUE**

23 16. This Court has subject matter jurisdiction under 28 U.S.C. § 1331 (federal question
24 jurisdiction), and § 1338 (copyright and trademark jurisdiction).

25 17. This Court has personal jurisdiction over all defendants. It has general personal
26 jurisdiction over defendants because they are corporations or limited liability companies organized
27 and existing under the laws of the State of California and/or because they are authorized to do
28

1 business and are doing business in the State of California, and they have the capacity to sue or be
2 sued in the State of California. And this Court has specific personal jurisdiction over all defendants
3 because they have committed acts in the State of California that give rise to all acts of infringement
4 asserted herein.

5 18. Venue is proper for plaintiffs' copyright infringement claims and Lanham Act claims
6 under 28 U.S.C. § 1400(a) and § 1391 (b), (c) and (d). Defendants are residents of the State of
7 California and subject to personal jurisdiction in this judicial district, and they have committed acts
8 in the State of California that give rise to all acts of infringement asserted herein.

10 IV. FACTUAL ALLEGATIONS

11 A. The Contour program, systems, and methods

12 19. The technology at the core of this case includes Contour Reality Capture ("Contour")
13 technology that was conceived, developed, and authored by plaintiff Rearden and is currently owned
14 by plaintiff Rearden Mova.

15 20. Contour (<http://www.rearden.com/mova.html>) is one of many technologies incubated
16 and offered by Rearden (www.rearden.com), a San Francisco Bay Area company founded in 1999 by
17 Steve Perlman as an incubator for fundamental technology, creative works, and their interplay.

18 21. Contour is the fourth performance motion capture technology that Rearden has used
19 in film and videogame production since its founding 19 years ago. Facial performance motion
20 capture, as both a technology and a tool for motion picture and videogame production, falls squarely
21 within the focus of Rearden's business. Rearden practices all of its technologies and inventions,
22 either directly or indirectly by spinning off Rearden entities to use its technologies and inventions.
23 Despite holding a global portfolio of hundreds of its own patents, Rearden has never been in the
24 business of licensing third parties to practice its technologies and inventions, and it has never
25 licensed nor sought to license any of its technologies, inventions, patents, copyrights, or trademarks.
26 Rearden's intellectual property portfolio exists only to protect Rearden's product and services

offerings, and neither Rearden nor any of its controlled entities has ever previously sued any other person or entity for patent or copyright infringement.

22. Mr. Perlman previously worked as Principal Scientist at Apple where he developed, among many other technologies, the multimedia underpinnings of the color Macintosh as well as QuickTime. He left Apple for two startups that later went public, and designed and co-founded WebTV, which was later acquired by Microsoft. Microsoft named Perlman President of a new Silicon Valley division focused on television products, which ultimately developed Microsoft's cable, satellite, IPTV and Xbox 360 systems. Perlman left Microsoft in 1999 and self-funded a technology incubator and visual effects production studio in San Francisco called Rearden, Inc. (now Rearden LLC). Rearden focused largely on developing fundamental media-related technologies whose development times (e.g., 5 to 15 years) are beyond the horizon of venture capital and corporate research and development. Perlman has operated Rearden continuously through to this day. He is a prolific inventor. Perlman is a named inventor on over five hundred patents worldwide, and among his many innovations are the following:

- The underlying technology for QuickTime (the video streaming technology for iPhone, iPad, iPod, and Mac and much of the multimedia technology for Apple);
- The underlying technology for many of Microsoft's video products;
- OnLive cloud gaming technology;
- Contour facial capture technology;
- Artemis pCell wireless technology; and
- A wide range of other technologies in other fields, including medical and national defense life-saving technologies, often in cooperation with the U.S. government and U.S. agencies, sometimes not publicly disclosed.

23. A major technology focus of Rearden from its 1999 founding to this day is "performance motion capture," a production technology typically used to create a 3D animated character in a movie or a videogame that moves exactly like a human performer. In 2000, Rearden began offering motion capture services for movies and videogames (through wholly-owned

1 subsidiaries Rearden Studios and then MOVA LLC) using existing commercial “marker-based”
 2 motion capture systems that could capture and track body (“skeletal”) motion, but there was no
 3 known technology at that time that could capture and track the subtleties of human facial motion in a
 4 realistic, life-like manner, despite an urgent need:

5 “The state of the art [before Contour] was ... marker-based motion
 6 capture...we looked at a number of other films at the time that were
 7 using facial marker tracking...as you can see, it gives you a pretty
 8 crappy performance... What we realized was that what we needed was
 the information that was going on between the markers. We needed the
 subtleties of the skin. We needed to see skin moving over muscle
 moving over bone. We needed creases and dimples and wrinkles...”⁸

9 Rearden set out to invent and perfect a photorealistic facial motion capture and tracking system.

10 24. Over the next five years, Rearden’s technical team—including brilliant, talented, and
 11 highly creative engineers, programmers, and visual effects artists—tried dozens of different
 12 approaches to solve the problem. Years of experimenting, testing, trials, failures, sweat of the brow,
 13 expenditure of millions of dollars, and finally stunning breakthroughs, ultimately led to the
 14 conception and perfection of a solution to the long-felt need—a technology that precisely captures
 15 and tracks the 3D shape and motion of a human face to sub-millimeter precision, producing
 16 photorealistic results. Rearden branded the technology Contour Reality Capture and offered it to the
 17 videogame and motion picture industries. The solution was comprised of a complex apparatus and
 18 methods for capturing facial performances, and wholly original software that operated the apparatus
 19 and subsequently processed the performance captures into works that could be used by effects
 20 studios to animate CG characters. This innovative technology was recognized in the motion picture
 21 industry as revolutionary:

22 “Contour’s promise is enormous,” [Director David] Fincher said, “The
 23 notion that the human face in all its subtleties could be mapped in real
 24 time and such density of surface information opens up so many
 possibilities for both two- and three-dimensional image makers and
 story-tellers.”

25 “I live in this environment, and I see stuff every day, so I get a little
 26 jaded,” said [then Digital Domain Senior VP and Executive Producer
 Ed] Ulbrich... “Other developments have been gradual, more

27 ⁸ Ulbrich, Ed (former Digital Domain CEO), “How Benjamin Button Got His Face” TED Talk,
 28 Feb 2009. https://www.ted.com/talks/ed_ulbrich_shows_how_benjamin_button_got_his_face.

1 evolutionary than revolutionary. Contour separates the performance
2 from the photography. It's a substantial turning point in the business,
and I think it will change how picture are made."⁹

3 25. Contour's technical breakthrough was introduced at the Special Interest Group on
4 Computer Graphics and Interactive Techniques ("SIGGRAPH") Conference on July 31, 2006 to
5 wide acclaim, including photographs of Contour's systems and methods on the front page of the *New*
6 *York Times*¹⁰, page B1 of the *Wall Street Journal*¹¹, and *The Hollywood Reporter*, among other
7 publications. Mr. Perlman was invited to present MOVA Contour technologies and their practical
8 applications in movie production to the Directors Guild of America¹². And he was invited on many
9 occasions to give public presentations on MOVA Contour and the development process that led to its
10 invention, for example in a speech at Columbia University¹³.

11 26. The following photograph¹⁴ from an article in *The Hollywood Reporter* on the day
12 Contour was unveiled—July 31, 2006—was directed to movie and videogame industry professionals
13 and illustrates several Contour program output works, which are described in further detail later in
14 subsequent allegations:
15
16
17
18
19
20

21 ⁹ Marlowe, Chris, "Contour mapping intricate detail: Mova revolutionizing motion-capture
22 process with new system," *The Hollywood Reporter*, July 31, 2006,
<http://www.mova.com/pdf/Contour-HollywoodReporter-060731-2.pdf>.

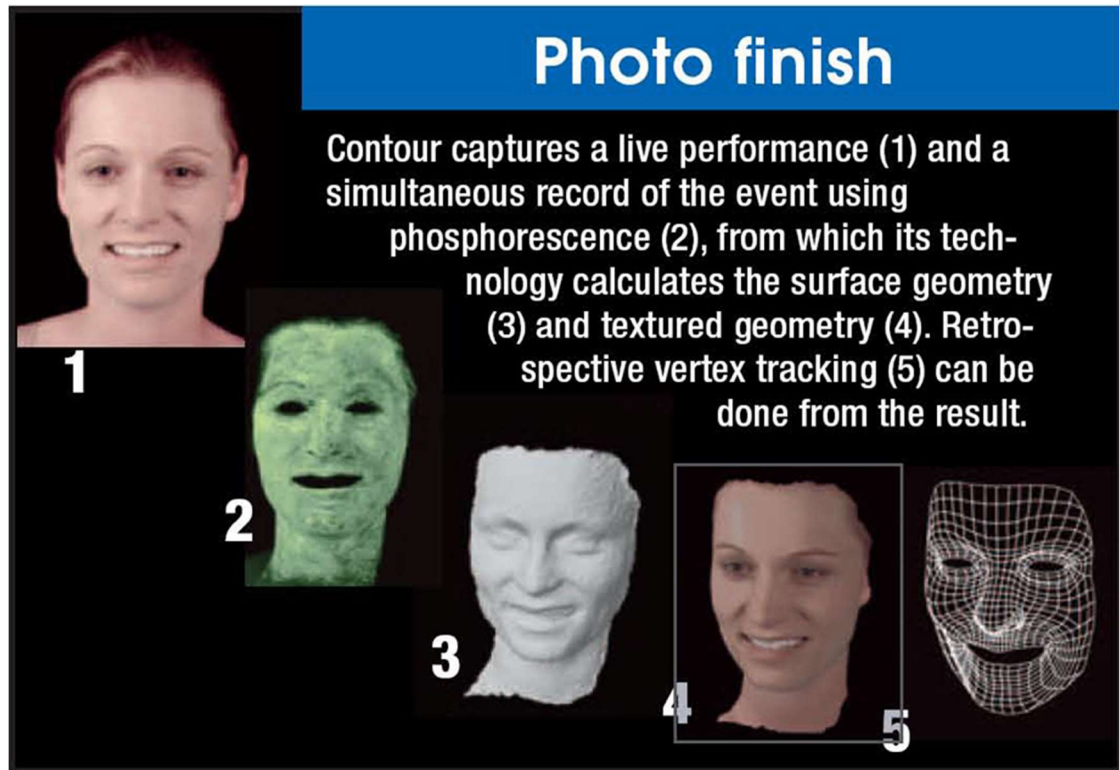
23 ¹⁰ Markoff, John, "Camera System Creates Sophisticated 3-D Effects", *New York Times*, July
31, 2006. <https://www.nytimes.com/2006/07/31/technology/31motion.html>.

24 ¹¹ Wingfield, Nick, "Digital Replicas May Change Face of Films," July 31, 2006.
25 <http://on.wsj.com/2eIRbO>.

26 ¹² "Facial Performance Capture for Photoreal Digital Characters' Presented by Steve Perlman,
27 Founder & President, Mova," Digital Day 2007: The Future of the Future, Directors Guild of
America, July 28, 2007. http://ishindler.com/articles/DGA_Digital_Day_flyer07.pdf.

28 ¹³ <https://youtu.be/1QxrQnJCXKo>.

¹⁴ Marlowe, *op. cit.*



27. Also on July 31, 2006, the following photographs appeared in a *New York Times* article directed to a general readership audience, which illustrate an application of the phosphor-based makeup used in Contour facial motion capture methods:



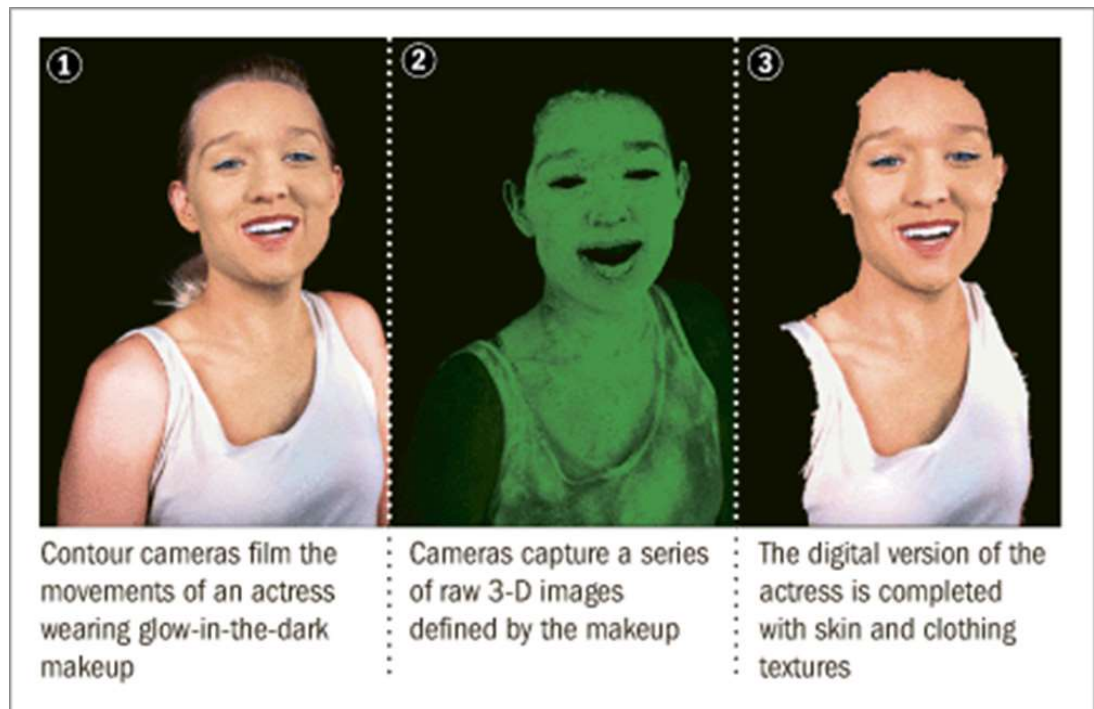
Actors must cover themselves with makeup containing phosphorescent powder for Contour, a system that can create 3-D effects. Austin Hice

and three Contour program output works (this photograph appeared on the front page):¹⁵



An actress goes from live performance, left, to phosphorescence, to a Contour-generated image, right. Mova.com

28. Also on July 31, 2006, the following photograph appeared in a *Wall Street Journal* article directed to a general readership audience, which illustrates the same three Contour program output works with “non-technical reader” annotations for each image (the web version of the article included a video that showed the three output works in motion):¹⁶



¹⁵ Markoff, *op. cit.*

¹⁶ Wingfield, *op. cit.*


1 29. In one embodiment, Contour uses an array of cameras whose shutters are
2 synchronized to strobing white lights and ultraviolet lights in conjunction with phosphor-based
3 makeup applied to the performer in random patterns, with the entire system controlled by the highly-
4 advanced, original, and proprietary Contour program that operates the Contour system in real time to
5 capture an actor's performance frame-by-frame, and then processes the capture into original Contour
6 program output works based on the captures.

7 30. The Contour system is controlled, and the captured camera images are processed, by
8 several computers running the Contour program. Part of the program operates prior to a facial
9 performance capture session to prepare and calibrate the Contour system. Part operates in real-time
10 during a live facial performance capture. And part operates after the facial capture to process the
11 captures into works that can be used to animate CG characters. The Contour program produces
12 several types of output works, some of which are used by the Contour program itself for further
13 processing, and some are used for animating a CG face in a movie or videogame.

14 31. One embodiment of the operation of the Contour program, system, and methods is
15 described in the following page from a Contour brochure below, distributed at computer graphics
16 and entertainment industry conferences:


HOW IT WORKS

PREPARATION



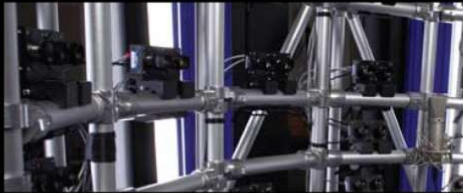
Preparation is completed in under an hour. The actor's skin is sponged with an FDA-approved phosphorescent makeup, either alone or mixed with skin-tone base color. Cloth can also be treated with a phosphorescent dye.

LIGHTS




The Contour capture system is portable, and can be set up on any light-sealed stage. The stage is then lit with custom Kino Flo fluorescent fixtures. Because the lights are flashed on and off at 90 to 120 frames per second (i.e. beyond human perception), the stage appears steadily lit to the eye.

CAMERAS




Two sets of cameras are placed around the stage area:
Color cameras capture normally-lit surfaces only when the lights are on. This provides the reference video used for previews.
Geometry cameras capture phosphorescent patterns (embedded in the makeup or cloth dye) only when the lights are off.


ACTION




Live Performance: Contour enables true "digital directing." Subjects are able to move freely within the capture volume. Color cameras capture normally-lit surfaces, providing reference video from three or more cameras.



Capture Process: Our cameras capture every surface detail where phosphorescent makeup is applied. It's like having millions of invisible markers. Wrinkles, dimples, lips, nostrils—every subtle detail is captured in motion.



Captured Surface: The recorded phosphorescent patterns are then correlated to produce a high-resolution surface geometry—100,000+ polygons per scene.



Tracked Surface: Contour tracks your optimal number of surface points from frame to frame and shot to shot. Tracked points are specified by the client after the capture session and placed wherever required. Tracked points can be added, moved and retracked, utilizing the same capture data.

For more information, or to contact us, visit www.mova.com. The MOVA studio is located in San Francisco, CA.

Copyright MOVA® LLC 2006–2008. MOVA is a registered trademark and Contour is a trademark of MOVA LLC. Patents Pending.

32. **Preparation:** Phosphor-based makeup (various types of phosphors are supported) is applied in a random pattern on the performer's face, neck, etc.—whatever body surfaces are intended to be captured—typically using an airbrush, sponge or cotton swab.

1 33. **Lights:** The performer sits or stands in the arc-shaped Contour apparatus in a light-
2 sealed stage. One part of the Contour program causes white lights and ultraviolet lights to be flashed
3 so rapidly that the flashing is beyond human perception, and it appears to the performer and
4 observers that the white and ultraviolet lights are on steadily.

5 34. **Cameras:** One part of the Contour program causes the shutters on two pluralities of
6 cameras, distributed around the apparatus, to open and close synchronously with the flashing of the
7 lights such that:

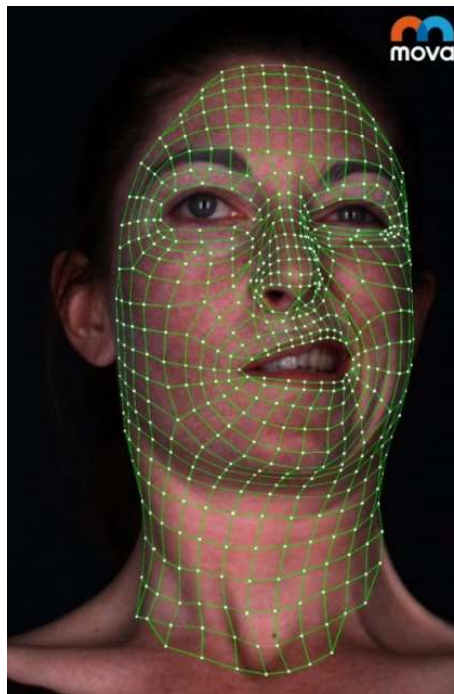
- 8 (a) a first plurality of cameras open their shutters when the white lights are on,
9 illuminating the natural skin color of the performer; and
10 (b) a second plurality of cameras open their shutters when the white lights are off
11 and the phosphor-based makeup is emitting random patterns of light.

12 35. **Action:** The performer provides her or his facial performance while one part of the
13 Contour program causes the output of each of the plurality of cameras to be recorded onto storage
14 devices. The output works of the two pluralities of cameras are illustrated in each half of the face in
15 the “Capture Process” section of the brochure reproduced above.

- 16 (a) the output of the first plurality of cameras is called the “**Skin Texture**” and it
17 looks like normal skin and facial features of the performer from multiple
18 angles, largely without visible makeup, and
19 (b) the output of the second plurality of cameras is called the “**Makeup Pattern**”
20 and it looks like a random pattern of green or blue largely without showing the
21 skin or other facial features (e.g., eyes or mouth) of the performer.

22 36. Part of the Contour program processes the Makeup Pattern output work to create a
23 high-resolution 3D surface that moves in the shape of the skin of the performer with sub-millimeter
24 precision. This output work is called the “**Captured Surface**” and rendered on a display, it looks like
25 a 3D bust of the performer’s skin in motion. A still frame of a Captured Surface work is shown in the
26 “Captured Surface” section of the brochure reproduced above.

37 The same part of the Contour program processes the Makeup Pattern output work to create a high-resolution 3D mesh that tracks points on the skin of the performer in 3D as the skin moves from frame-to-frame. This output work is called the “**Tracking Mesh**” and rendered on a display, it looks like a 3D mesh that exactly follows the movement, stretching and wrinkling, etc., of the skin as the performer moves her or his face. A still frame of a Tracking Mesh work is shown in the “Tracked Surface” section of the brochure reproduced above. The Tracking Mesh work tracks the subtleties of the performer’s facial motion with sub-millimeter precision. For example, if the performer’s expression causes the cheeks to bulge out from a smile, the points on the 3D mesh tracking the cheek will bulge out in exactly the same 3D shape. If the forehead furrows into wrinkles, then the points on the 3D mesh tracking the forehead will furrow into wrinkles in exactly the same 3D shape. The Tracking Mesh work can be configured to be at any resolution, whether thousands or even millions of points, depending on the level of tracking detail required by the project. An example of a Tracking Mesh work tracking skin deformation from an extreme expression is shown here:

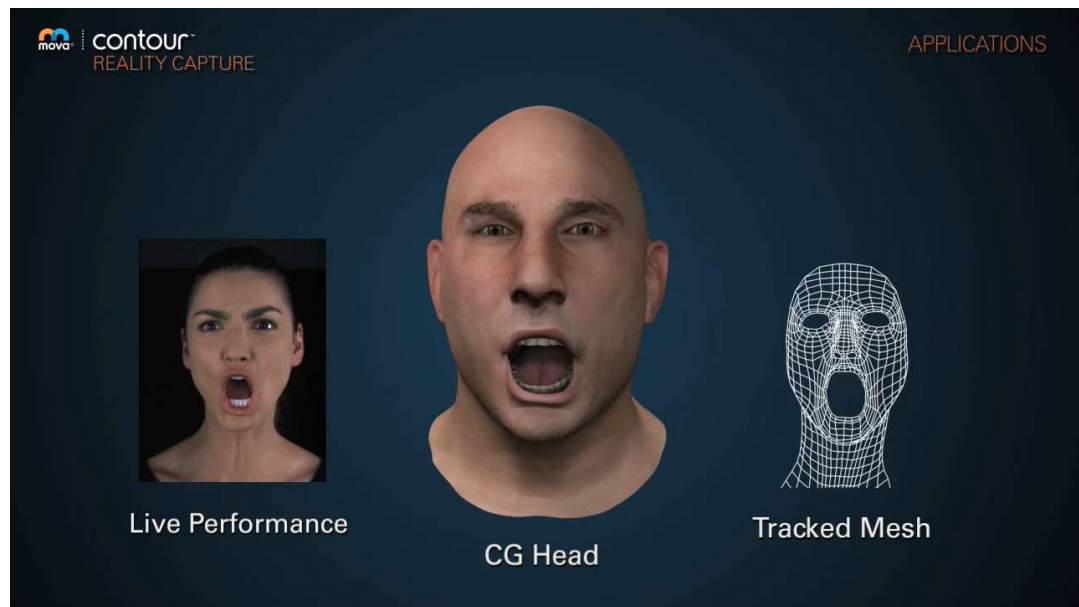


38. The Contour program's output works specified above can be used for many different applications. Often they are used for "retargeting" the performer's face onto another 3D model of a face, either a real face (e.g. when Rupert Grint (Ron Weasley)) transforms into the face of Daniel Radcliffe (Harry Potter) in *Harry Potter and the Deathly Hallows, Part I*), or a fictional face (e.g. Mark Ruffalo's face transforms into the Hulk's face in *The Avengers*, Brad Pitt's 44-year-old face retargeted to an 87 year-old version of his face in *The Curious Case of Benjamin Button*), or Jeff Bridge's face retargeted in *TRON: Legacy* (2010) to his 28 year-younger face as it appeared in *TRON* (1982).

39. When the retargeting is from a first performer's real face to the real face of a second performer, then each performer's face is captured by the Contour system, with output works created by the Contour program for each performer. The Captured Surface, Tracking Mesh, Makeup Pattern, and Skin Texture output works can be used in the construction of a 3D model of the face of the second performer, and then the Tracking Mesh work of the first performer is used to animate the 3D model of the second performer's face. The result is a 3D model of the face of the second performer that is animated by the motion of the first performer's face. For example, the photograph below shows a man (the "second performer") captured by the Contour program, system, and methods. The 3D model of a CG head (center) was generated from the Contour program output works, including the Makeup Pattern (left) and Tracking Mesh (right) works:



40. The photograph below shows the performance of the woman (the “first performer”) in the brochure reproduced above (showing her Skin Texture (left) and Tracking Mesh (right) Contour output) works retargeted to the man’s CG head in the above photo by retargeting the points on her Tracking Mesh work to the 3D model of the man’s CG head. As you can see in her Live Performance (showing the Skin Texture output work, below left), her facial expression causes the man’s CG head to track her facial expression. Contour’s Tracking Mesh work is so precise that a high degree of realism is maintained, even though the man’s CG face and head have a very different shape and size than hers, and he is male and she is female. In fact, Contour output works capture the woman’s performance with such fidelity that observers of the animation have commented that despite the fact that the man’s CG face clearly has a male *shape*, the *motion* appears to be that of a female face. The video of this and other Contour examples is available on Rearden’s home page (www.rearden.com, click on the MOVA logo and click on the video), or directly (www.rearden.com/mova.php or <https://vimeo.com/86130623>):



41. A similar retargeting process can be performed with a fictional head. For example, the two photographs below are of a performer whose face was captured in the Contour system showing the Skin Texture output work on the left and how she appeared to the naked eye (or a conventional camera), showing the Makeup Pattern work combined with the Skin Texture work on the right:



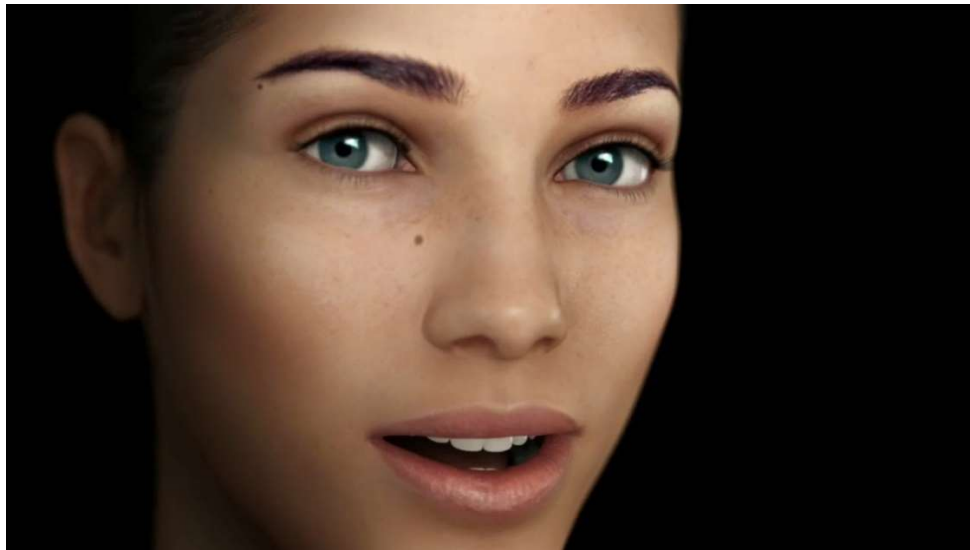
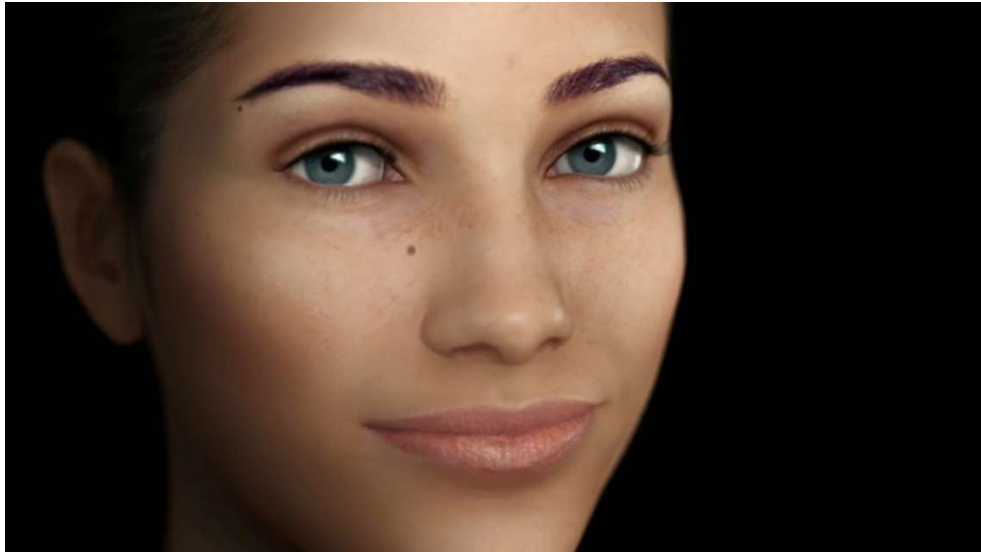
42. The photograph below shows several views of a CG model of the head of a videogame character that was created by an artist:



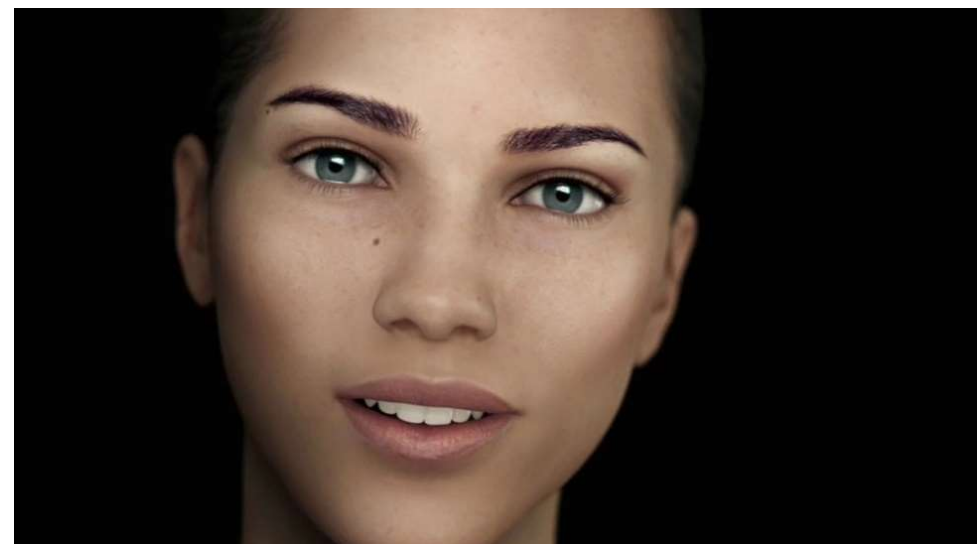
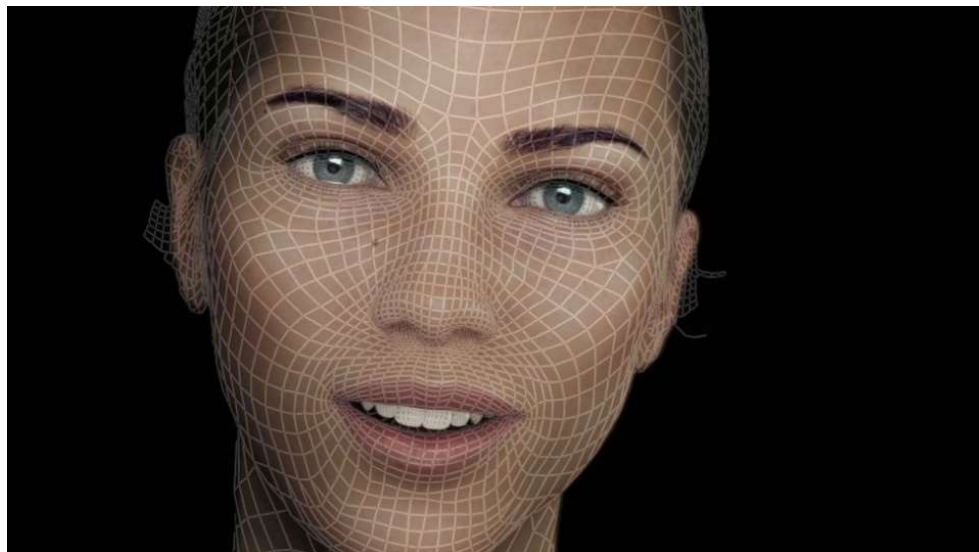
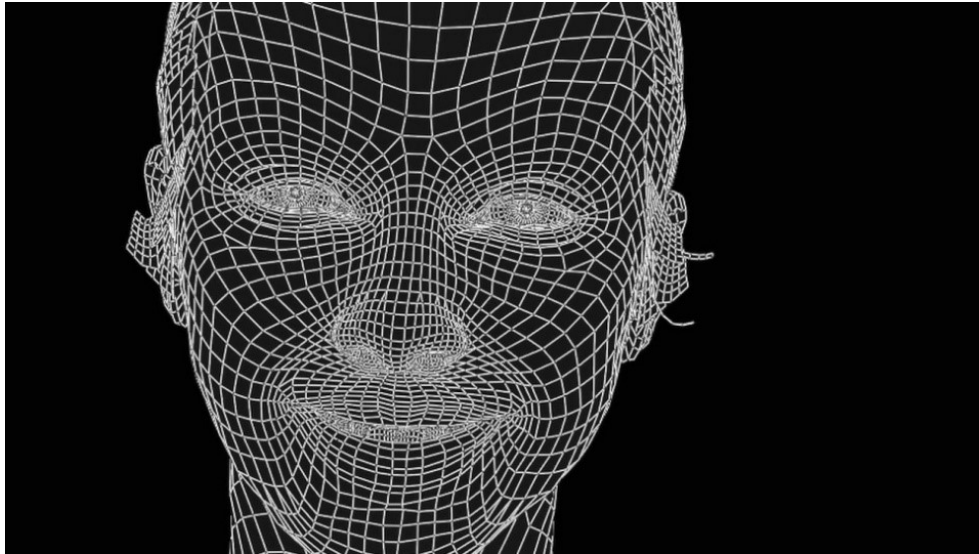
Although the head looks almost photoreal (it was only a test, not a polished CG model) when it is in a neutral pose and immobile, if the face were animated—whether through hand-drawn animation or prior art motion capture techniques—any photorealism would be lost because the human eye and brain are precisely attuned to notice any unnatural imperfection in facial motion. But, by using the Contour program, every subtle motion of the human face is captured with sub-millimeter precision, producing output works that retain that precision and can be retargeted to any fictional CG head, bringing it to life.

43. The photographs below show the above videogame character's head in two expressions retargeted from the Tracking Mesh work generated by the Contour program from the

1 Contour facial capture of the above actress. Although the photorealism of the motion cannot be seen
2 in static photographs, the motion is realistic and life-like, despite the fact that the performer's face is
3 a very different shape than that of the CG head. Even in a static image, however, one can see how the
4 expressionless CG model tracked the good-natured expression of the actress:



44. A 3D “wireframe” (a mesh of 3D points) of the retargeted CG character’s head is
shown below, separately and overlaid upon the rendered image, and then the final rendered image:



45. In summary, the Contour program transforms the facial performance of a live performer, capturing the most subtle of facial motions with sub-millimeter precision to animate with realism the life-like motion of faces of CG characters that appear in a finished movie, videogame, or other production. The process begins by airbrushing or otherwise applying a random pattern of phosphor-based makeup on a performer, having the performer sit or stand in the arc-shaped Contour apparatus surrounded by an array of white lights and ultraviolet lights and two pluralities of cameras, with the lights flashed rapidly and synchronized with the camera shutters as Skin Texture and Makeup Pattern works are created by the Contour program. The Contour program then processes the Makeup Pattern work to create thousands or even millions of points in 3D as the performer's face moves, producing precise Captured Surface and Tracking Mesh works. Thus, the Contour program produces output works that include the following:

- **Skin Texture**, showing the normal skin and facial features of the performer from multiple angles, largely without visible makeup, in color
- **Makeup Pattern**, showing the random pattern of makeup on the performer from multiple angles, largely without visible skin or facial features, in grayscale
- **Captured Surface**, a high-resolution moving 3D surface in the shape of the performer's skin as the performer's face moves
- **Tracking Mesh**, a high-resolution 3D mesh that exactly tracks the movement, stretching, wrinkling, etc. as the performer moves their face.

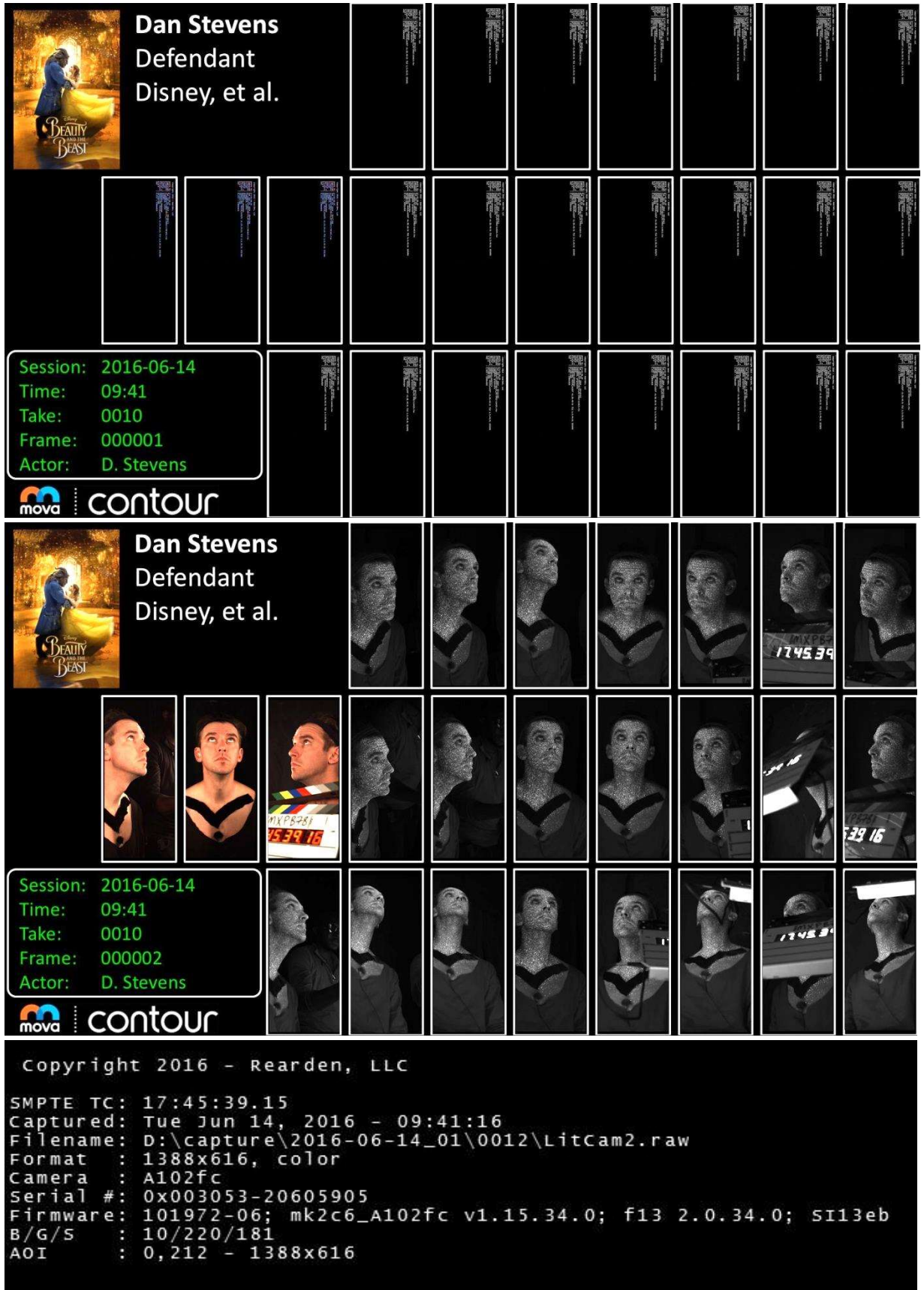
The Tracking Mesh work can then be retargeted to a CG face, animating it with photorealistic and natural motion, thereby precisely preserving every subtlety of human expression by the performer in the final movie, videogame, or other production.

46. The Contour program includes a security mechanism that automatically affixes notice of Rearden's Contour program copyright to Skin Texture and Makeup Pattern output works, an example of which is shown in the three images below from a *Beauty and the Beast* Contour capture of performer Dan Stevens. The first and second groups of images below show the first and second frames, respectively, of the three color Skin Texture and twenty-two grayscale Makeup Pattern

1 works. The first frame contains the copyright notice, year, date, and time of the capture and technical
2 Contour capture information; the second frame (and all subsequent frames) shows the performer's
3 frame-by-frame capture by the Contour program from the angle of each camera in the Contour
4 apparatus. The third image below is an enlargement of the first frame of one Skin Texture output
5 work, showing the copyright notice which reads, "Copyright 2016 - Rearden LLC", and also
6 includes the date and time of the Contour capture session: "Tue, Jun 14, 2016 - 09:41:16". The date
7 and time stamping notifies any Contour program end-user that the copyright of the Contour program
8 is controlled by Rearden LLC as of the date and time of the Contour capture. Since the end-user
9 would not have access to the copyright notices embedded into the Contour program's source code,
10 the current-year copyright notice serves as *express notification that Rearden LLC is asserting its*
11 *copyright in the Contour program*. This copyright protection feature affixed copyright notice on
12 every Contour program Skin Texture and Makeup Pattern work from the date of the Contour
13 program theft in early 2013 until this Court's Preliminary Injunction Order¹⁷ went into effect on June
14 17, 2016, finally halting use of the stolen Contour program. The below Contour capture was time-
15 stamped on June 14, 2016, evidencing that the stolen Contour program was still in use by defendants
16 Disney Pictures Production, Disney Pictures, and Chip Pictures three days before the Injunction
17 Order in *Shenzhenshi, et al. v. Rearden, et al.* From its theft in 2013 through the June 17, 2016
18 Injunction Order, many thousands of Contour program works were created for Disney movies using
19 the stolen Contour program, each affixed with "Copyright [current date] - Rearden LLC" and the
20 date and time of the capture.

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¹⁷ *Shenzhenshi, et al. v. Rearden, et al.*, NDCA Case No. 15-797, Dkt. 188



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2 47. Within days after the Contour program and system were unveiled at SIGGRAPH in
3 2006, tests and production began on one of the first movies utilizing Contour, *The Curious Case of*
4 *Benjamin Button*. The movie was released in 2008. The photorealistic reverse-aging of Brad Pitt's
5 face from an 87-year-old man backwards to his then-age of 44, and then further backwards to a
6 younger age, was widely lauded as a visual effects ("VFX") milestone, the first ever photorealistic
7 CG face, winning an Academy Award for Best Visual Effects for the team at the VFX production
8 company, Digital Domain, which had hired Rearden to operate the Contour system to capture Brad
9 Pitt's face and generate Contour program output works for the film.

10 48. In a widely-viewed TED (Technology, Entertainment, Design) Talk entitled, "How
11 Benjamin Button Got His Face," Ed Ulbrich, then Digital Domain's Senior VP and Executive
12 Producer (subsequently the CEO of successor Digital Domain 3.0, Inc.), confirmed that *The Curious*
13 *Case of Benjamin Button* would have been "impossible" to make but for unprecedented facial
14 capture precision and subtlety of the Contour program's output works. Ulbrich stated in the talk:

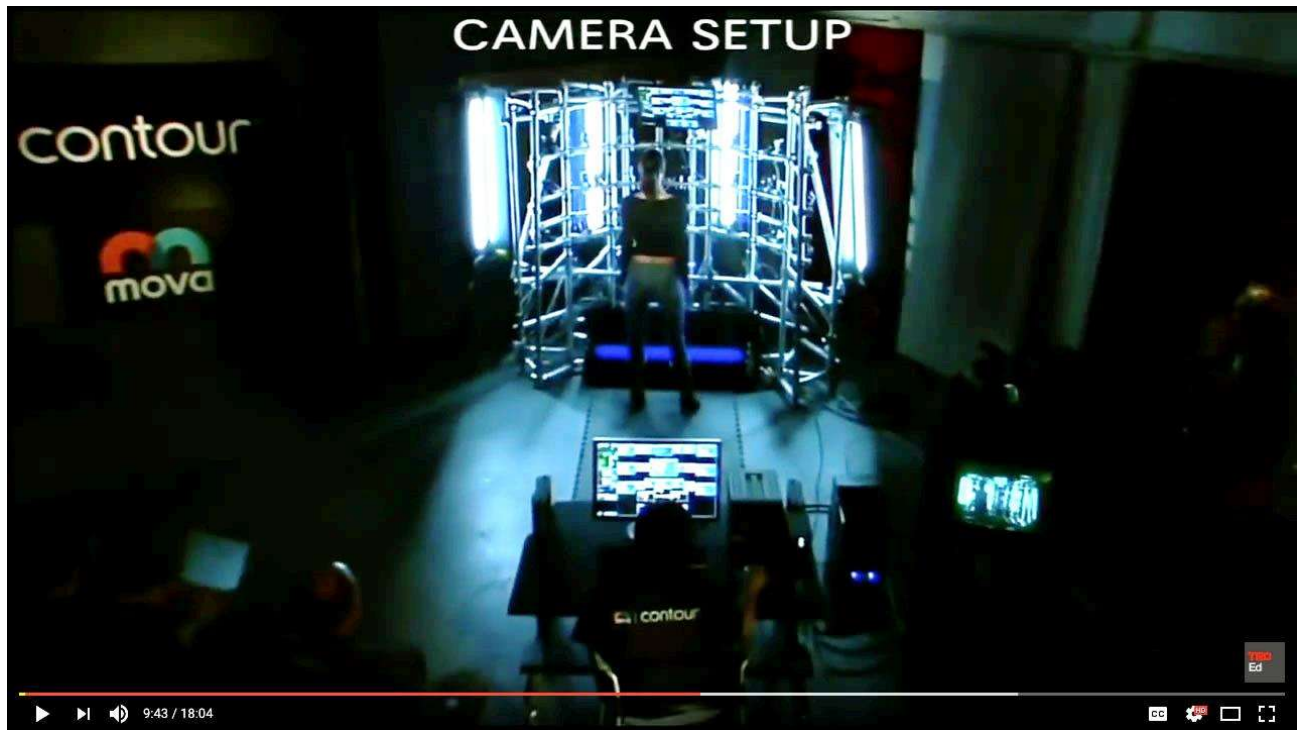
15 "We first got involved in *The [Curious Case of Benjamin Button]* project
16 in the early 90s.... We took a lot of meetings and we seriously
17 considered it. But at the time, we had to throw in the towel. **It was**
18 **deemed impossible. It was beyond the technology of the day to**
19 **depict a man aging backward...** The project came back to us a decade
20 later.... **we came across a remarkable technology called Contour...**
21 creating a surface capture as opposed to a marker capture... **This was**
22 **when we had our 'Aha!' This was the breakthrough...** we could put
23 Brad [Pitt] in this [Contour] device, and use this Contour process, and
24 we could stipple on this phosphorescent makeup and put him under the
25 black lights, and we could, in fact, scan him in real time... effectively,
26 we ended up with a [Contour program output file] 3D database of
27 everything Brad Pitt's face is capable of doing... we could transpose the
28 [Contour program output file] data of Brad at [then-aged] 44 onto [a 3D
model of] Brad at 87. So now, we had a 3D database of everything Brad
Pitt's face can do at age 87, in his 70s and in his 60s."¹⁸

29 49. In the TED Talk, Ulbrich showed details of the Contour program and output works,
30 and how the CG face of Benjamin Button in the final movie was derived from the Contour program

¹⁸ Ulbrich, *op. cit.* (emphasis added).

1 output works. The following paragraphs describe still frames from the TED talk (labeled by
2 “Minutes: Seconds” from the start of the video).

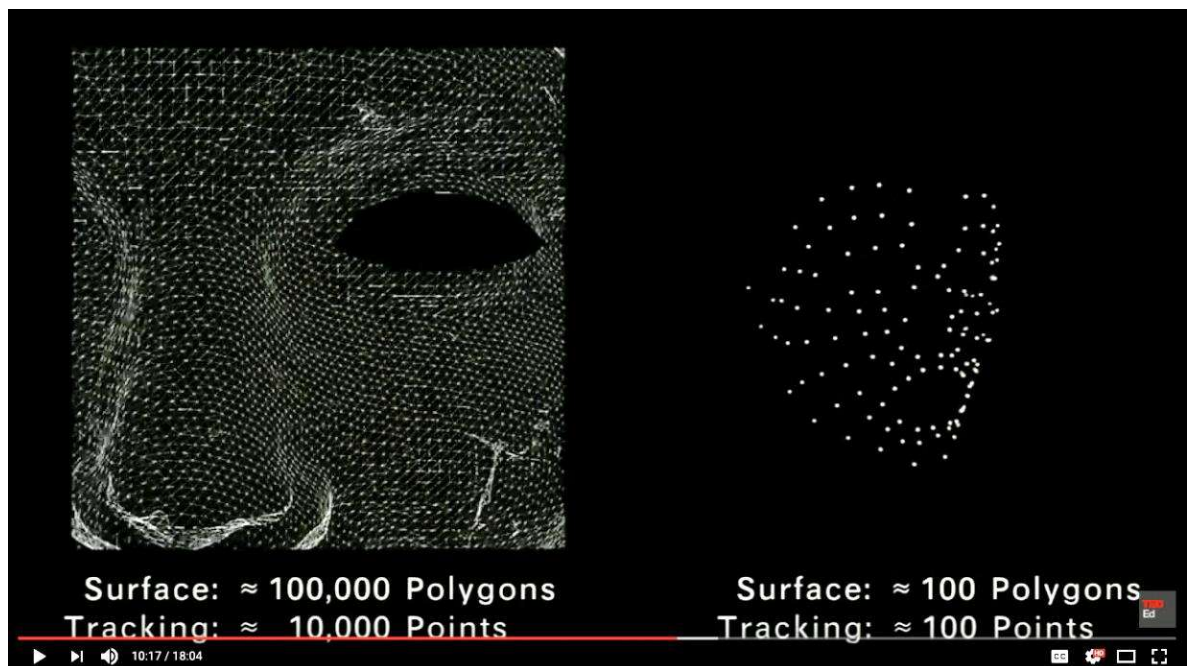
3 50. 9:43: The branded Contour apparatus, a semicircle of two pluralities of cameras with
4 synchronized white and ultraviolet lights surrounding a performer, with Rearden’s Mova LLC staff
5 operating the Contour system:



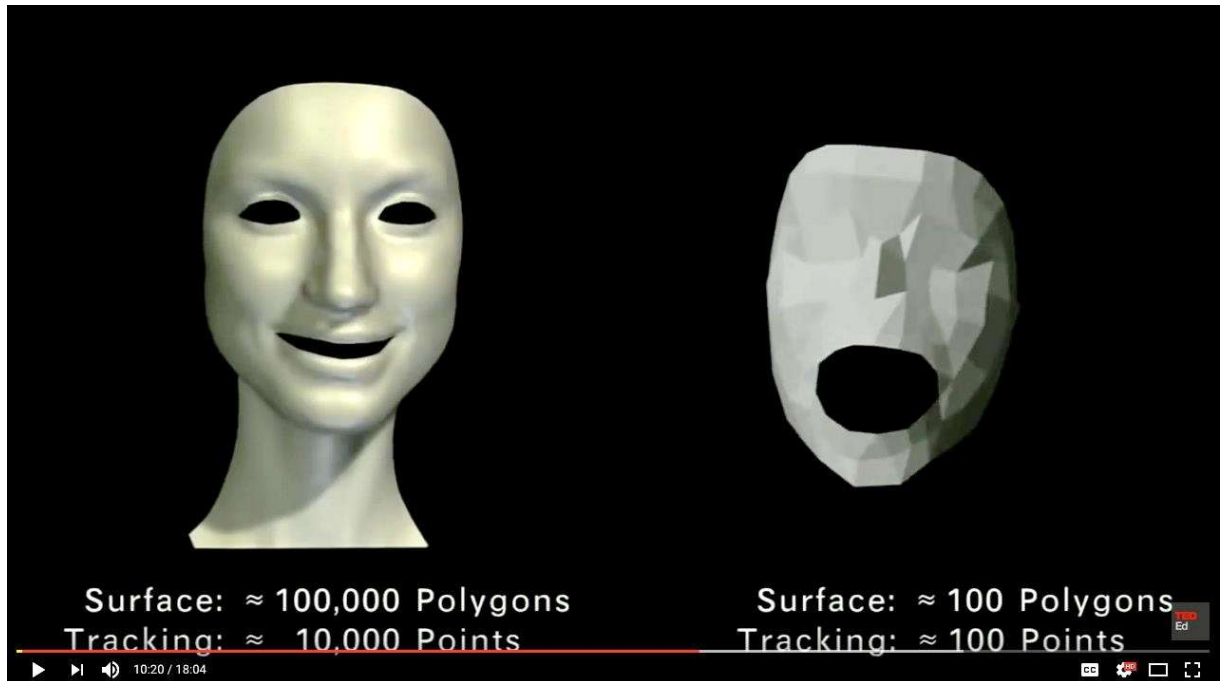
18 51. 10:11: On the left, Contour program **Skin Texture** output work, showing the
19 performer’s natural skin color and facial features. On the right, a performer with conventional motion
20 capture markers on her face:
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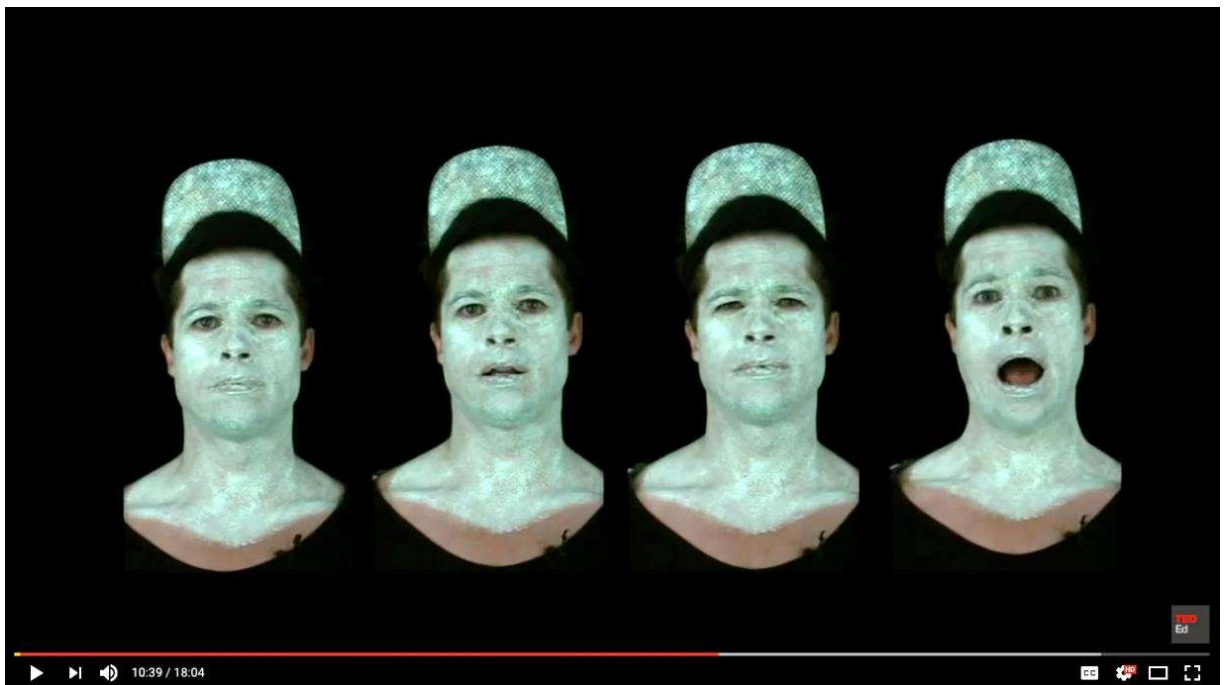
52. **10:17:** On the left, Contour program **Tracking Mesh** output work, showing hundreds of thousands of points in 3D, the Tracking Mesh work's resolution is so high that the points can only be seen by zooming in. In contrast, conventional marker-based resolution is shown on the right:



53. **10:20:** On the left the Contour program **Captured Surface** work, showing high-resolution surface geometry. In contrast, marker-based facial capture surface geometry on the right:



54. **10:39:** Contour program **Makeup Pattern** work, showing random patterns from glowing phosphor-based makeup. Each of the four Contour facial captures of Mr. Pitt was a separate motion facial performance used for a different facial expression of Benjamin Button. The Contour program created high-resolution **Captured Surface** and **Tracking Mesh** works from each of these:



55. **10:49:** Contour program **Makeup Pattern** works, showing how many Contour output works were used. Each of the Contour facial captures was a separate motion facial performance of Mr. Pitt used for a different facial expression of Benjamin Button. The Contour program created high-resolution **Captured Surface** and **Tracking Mesh** output works from each of these, creating a database of Capture Surface and Tracking Mesh output works:

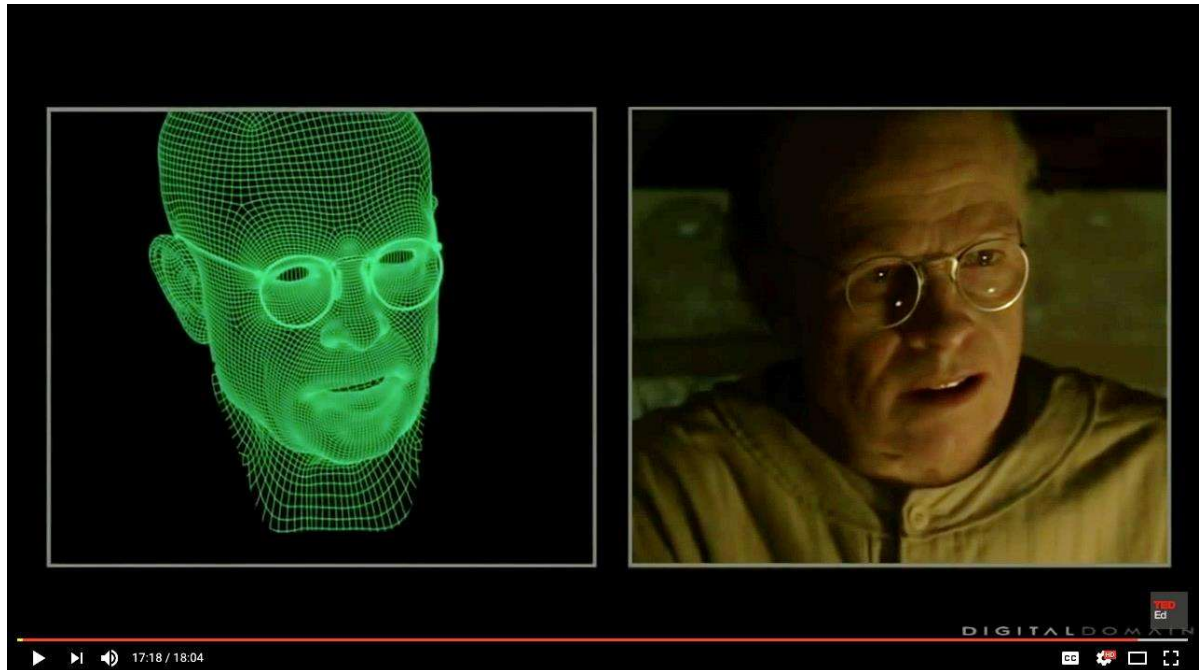


56. **12:33:** Contour program **Makeup Pattern** work (left), **Captured Surface** work (middle), retargeted **Captured Surface** and **Tracking Mesh** works to a fictional aged head (right), are shown below. The 3D points of the Contour **Tracking Mesh** work of Mr. Pitt's actual face were retargeted to corresponding points on the 3D fictional "maquette" (i.e., hand-made 3D bust) of Mr. Pitt at age 87. As a simple example, the point on the right corner of Mr. Pitt's actual mouth could correspond to the point on the right corner of the 3D maquette's mouth. As Mr. Pitt's smile widens during the Contour capture session, moving the tracked point on the corner of his mouth outward, the retargeted point on the 3D maquette's mouth would move proportionately outward causing the 87-year-old smile to widen. As described by Mr. Ulbrich: "[Left:] This is Brad doing one of the [character expression] poses. [Middle:] And here's the resulting [**Captured Surface** work] data that comes from that, the model that comes from that. [Right:] Retargeting is the process of transposing

that [Captured Surface and Tracking Mesh work] data onto another model. And because the life cast, or the bust—the maquette—of Benjamin was made from Brad, we could transpose the [Captured Surface and Tracking Mesh work] data of Brad at 44 [years] onto Brad at 87 [years]. Effectively, we ended up with a [Captured Surface and Tracking Mesh work] 3D database of everything Brad Pitt’s face is capable of doing...we could transpose the [Captured Surface and Tracking Mesh work] data of Brad at [then-aged] 44 onto [a 3D maquette of] Brad at 87. So now, we had a 3D database of everything Brad Pitt’s face can do at age 87, in his 70s and in his 60s”:



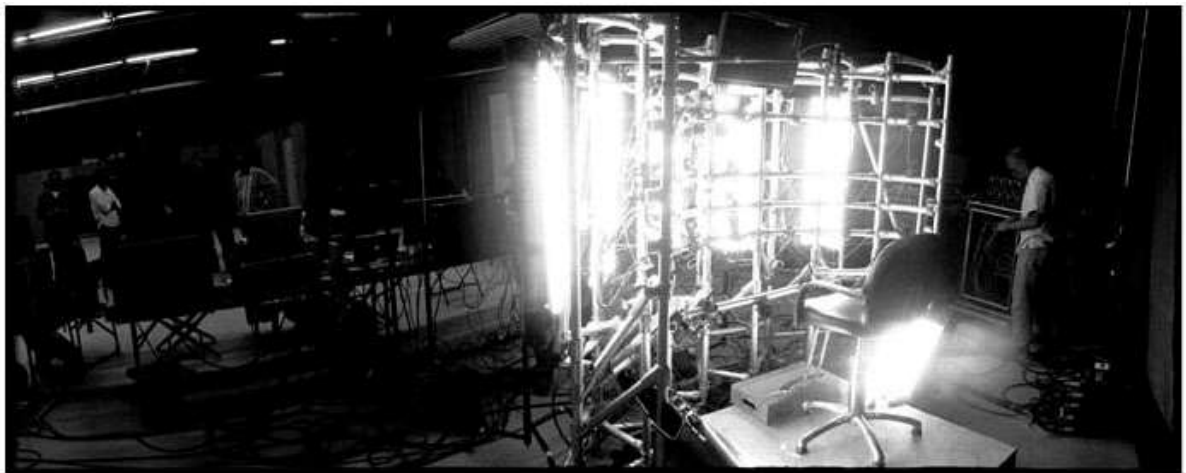
57. 17:18: On the left is 87-year-old fictional head maquette Tracking Mesh work retargeted from a Contour program Tracking Mesh work, with a pair of glasses added in as a prop. The final CG face is shown on the right after various steps such as texturing and lighting that is applied to the maquette. The resulting CG face is integrated into the live-action footage of the final scene:



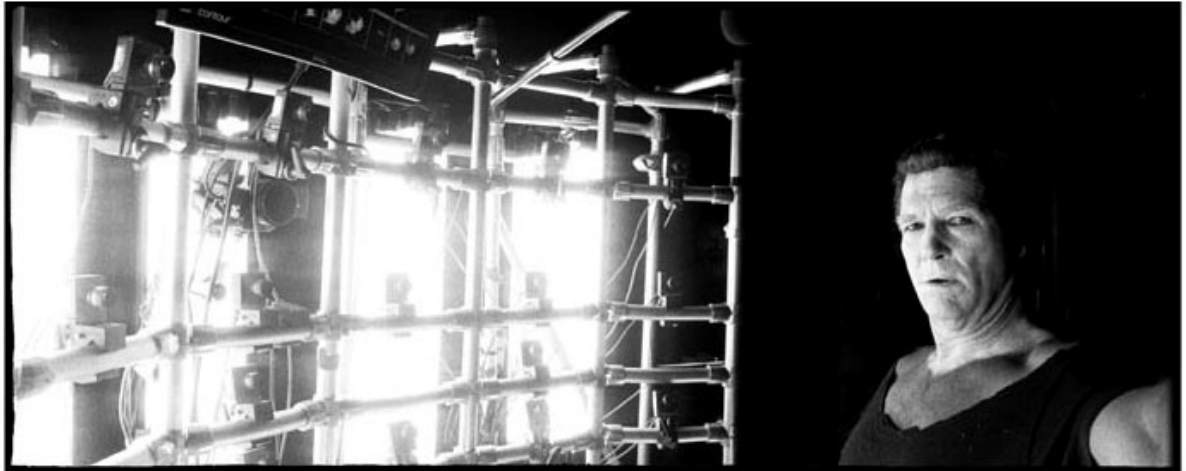
58. The photorealistic reverse-aging derived from the Contour system, methods and output works received wide acclaim when *The Curious Case of Benjamin Button* was released in December of 2008. But even before the movie's release, word of the unprecedented CG face realism achieved by the Contour system was spreading through the VFX industry. In July of 2008, defendant Disney hired Mova LLC for another reverse-aging movie, *TRON: Legacy*, the sequel to Disney's *TRON* released in 1982. Contour was used in a similar manner as in *Benjamin Button* to reverse-age the face of Jeff Bridges, the star of *TRON* and *TRON: Legacy*, to look as he did in 1982. Mr. Bridges published his experience of using Contour through wide-angle black-and-white photography and hand-written notations, below:



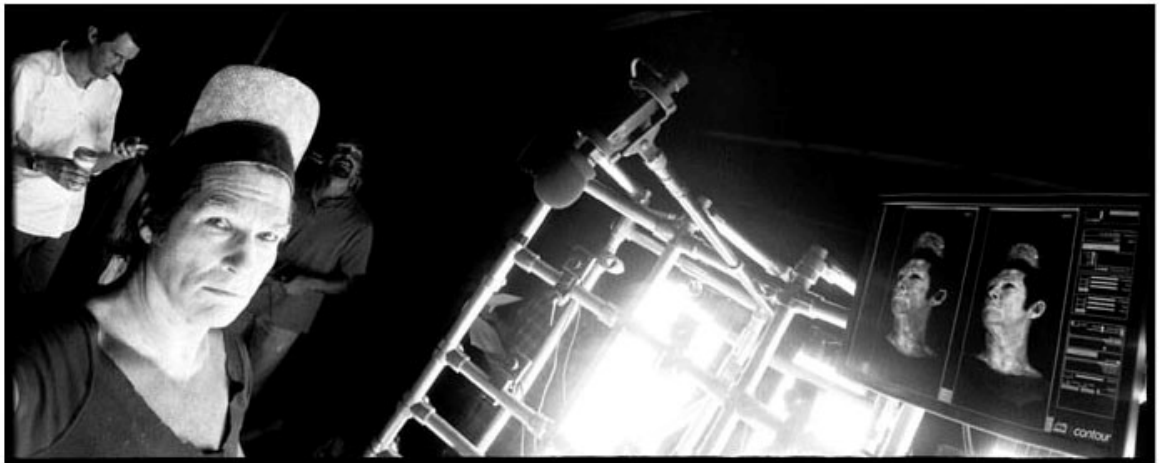
and Ready



to be digitized



Mova Technology came up with this rig . . .



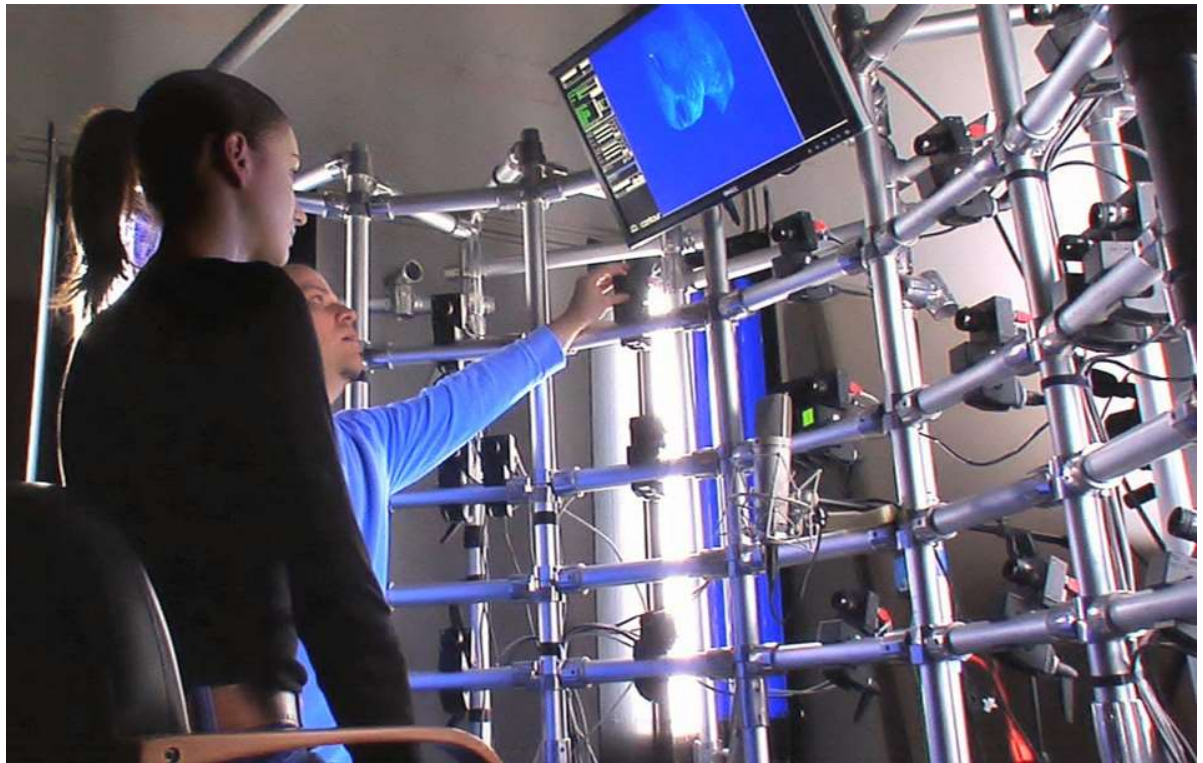
that captures every expression you can think of . . .

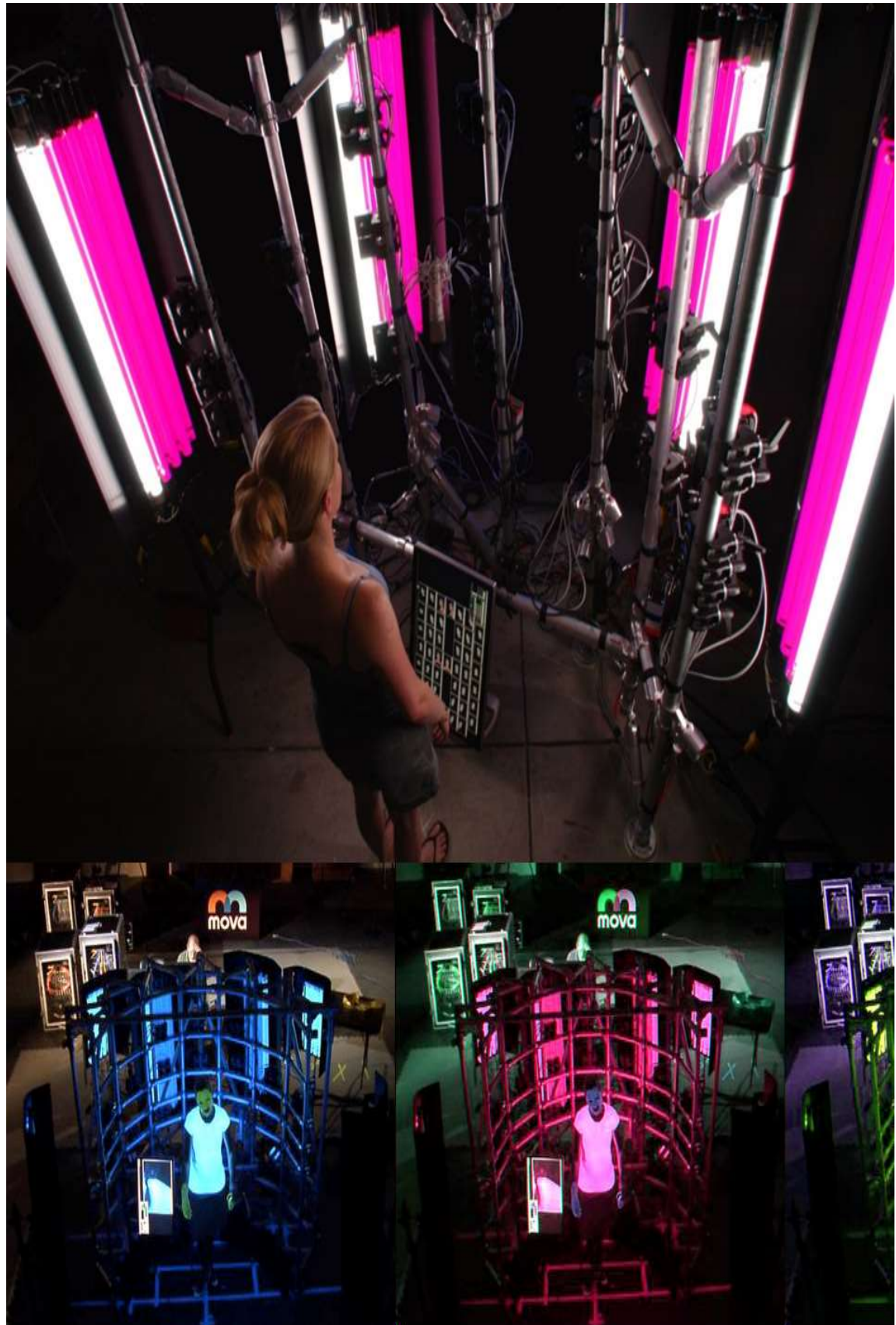


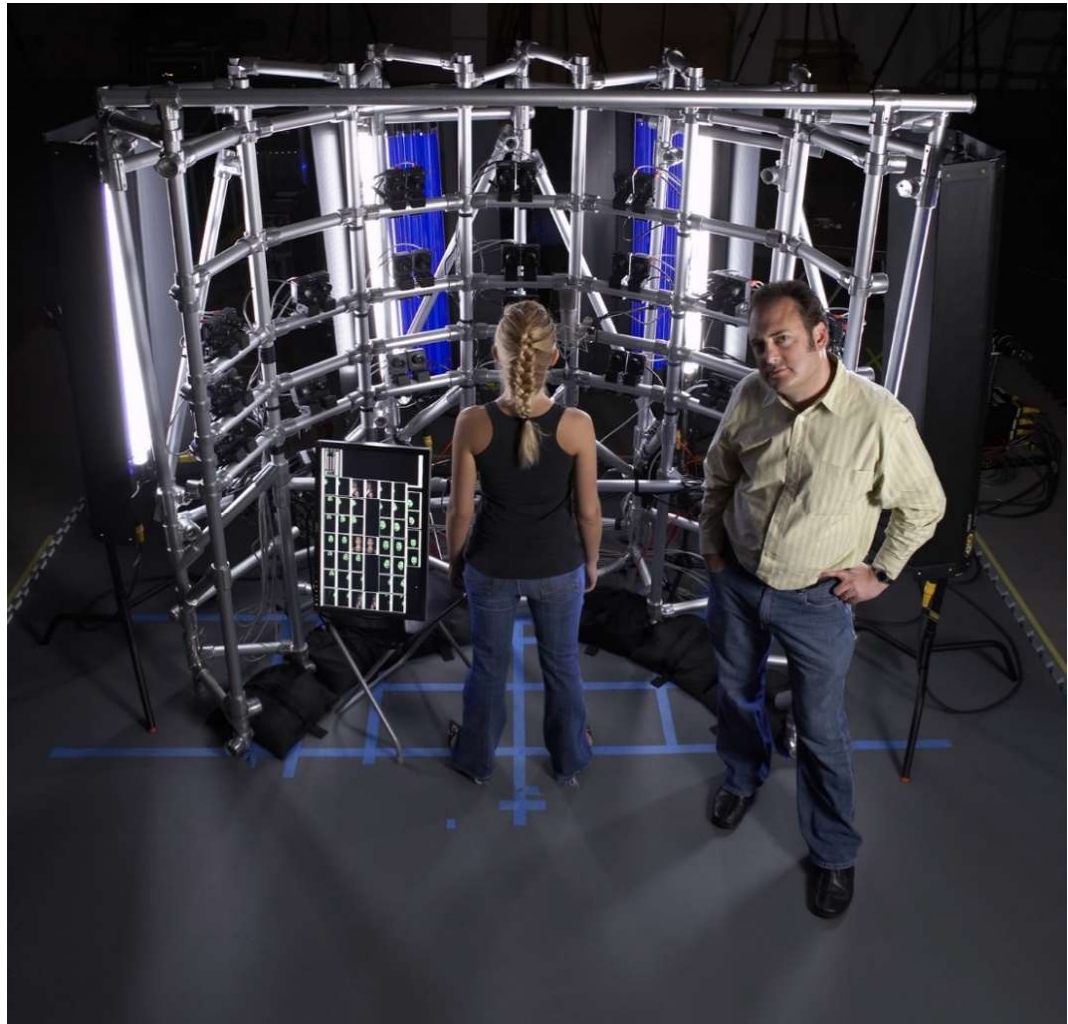
. . . from every angle

1 59. In addition to transforming an actor's age, the same process can be used for many
2 other VFX purposes, such as transforming an actor's face into a creature (e.g. the Hulk in defendant
3 Disney's *The Avengers*), or mapping one character's face onto another's (e.g. Rupert Grint (Ron
4 Weasley) was transformed into Daniel Radcliffe (Harry Potter) in *Harry Potter and the Deathly
5 Hallows, Part I*).

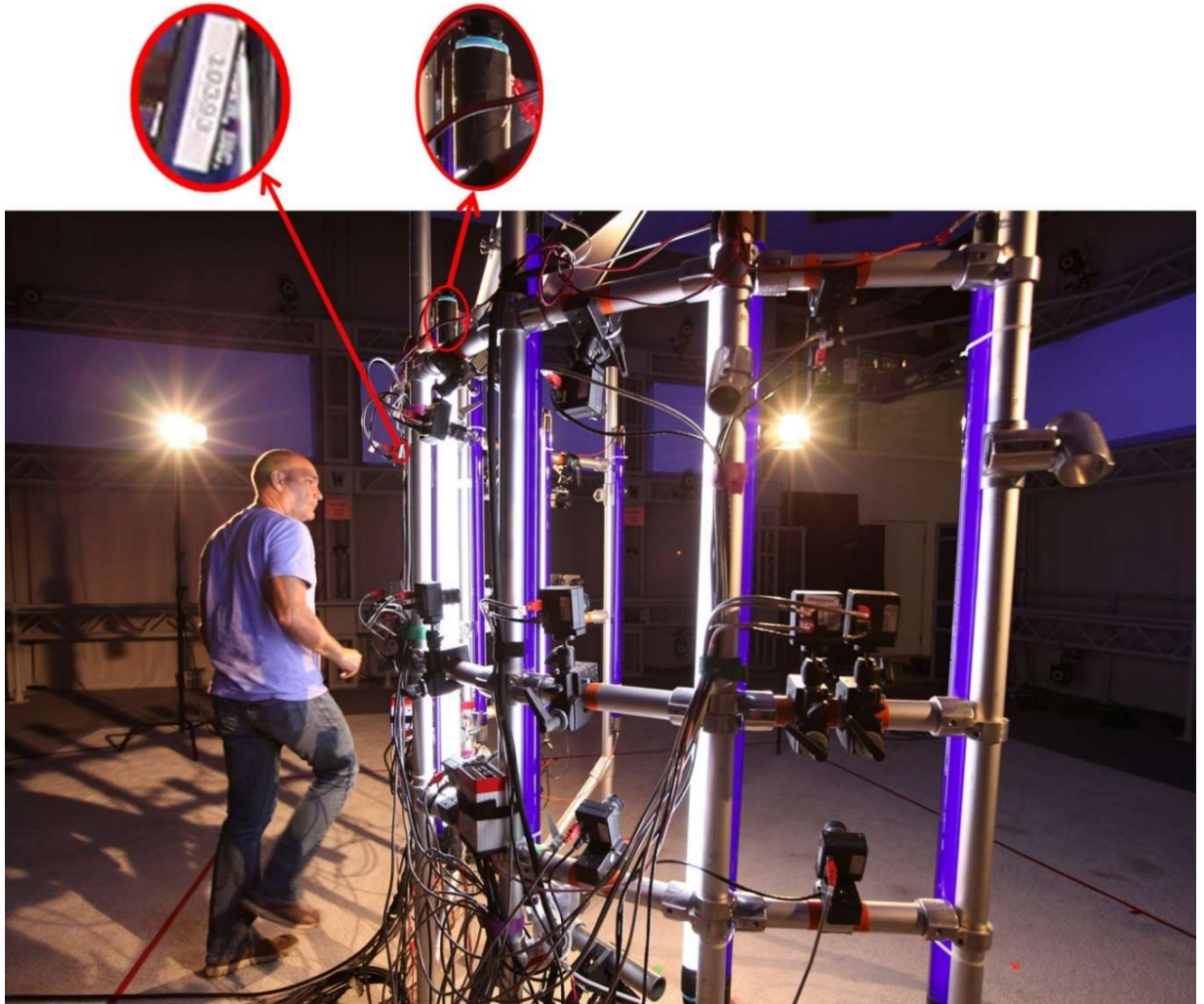
6 60. The following four photographs show the arc-shaped Contour apparatus, two
7 pluralities of synchronized cameras, white light and ultraviolet light sources, computers running the
8 Contour program, and actors wearing the phosphor-based makeup of the Contour systems and
9 methods, used lawfully by defendants and operated by Rearden and its controlled entities in *TRON:
10 Legacy* (2010), *Pirates of the Caribbean: On Stranger Tides* (2011), *John Carter* (2012), and *The
11 Avengers* (2012) (Mr. Perlman appears at the right in the last photograph):







61. And the following photograph released by Digital Domain shows the stolen Contour apparatus that was operated by the thieves and used unlawfully by defendants in at least *Guardians of the Galaxy*, *Avengers: Age of Ultron*, and *Beauty and the Beast*. Close inspection of the photo shown in the left inset, shows the thieves neglected to remove a Rearden asset tag on one of the stolen cameras. Rearden Asset #10393 is a Basler 102f Camera, Serial # 20606024, purchased on October 1, 2006, and stolen in 2013 along with the Contour program. Also, numerous tell-tale details specific to Contour's operation are visible in the stolen Contour apparatus photograph (e.g. the right inset shows black tape is wrapped around the end of a fluorescent lamp tube to prevent light spillage from the glowing electrode, a Contour-specific technique taught in Rearden's US Patent 7,567,293 at 19:66-20:15), confirming that the thieves used the identical Contour program, system and methods:



62. The Contour system has no “operating manual.” It is a hand-built system, the operation of which is known only by Rearden’s MOVA team who invented it and Rearden’s MOVA employees and contractors who have been trained to use it under strict confidentiality obligations. It was not intended to be an end-user system and must be used carefully with knowledge of its operation for it to function correctly and safely. Defendants were able to use the Contour system only because they had contracted with DD3, which had hired the rogue former Rearden employees who orchestrated the theft to operate Rearden’s Contour system without authorization.

B. The Contour intellectual property

63. The Contour computer program is the subject of United States Copyright Registration No. TXu001977151, a copy of which is attached hereto as Exhibit 1. A copyright vested in the

1 Contour program at least as early as 2009, when it was completed. Plaintiff Rearden Mova is the
2 owner of the Contour program intellectual property and copyright, and the Copyright Registration
3 No. TXu001977151. The Contour program runs on computers that are part of the Contour apparatus.

4 64. The Contour methods and systems are the subject of issued United States Patent Nos.
5 7,605,861 (the "'861 Patent"), 8,659,668 (the "'668 Patent"), 7,548,272 (the "'272 Patent"),
6 7,567,293 (the "'293 Patent"), and 8,207,963 (the "'963 Patent"), as well as numerous United States
7 pending patent applications, and international patents and patent applications. Plaintiff Rearden
8 Mova is the exclusive owner of the '861, '668, '272, '293, and '963 patents, as well as all other
9 domestic patent applications and all international patents and patent applications drawn to the
10 Contour systems and methods. The Contour apparatus and methods are embodiments of the claims
11 of the '861, '668, '272, '293 and '963 patents.

12 65. MOVA® and Contour® are the subject of United States Trademark Registration Nos.
13 U.S. Registration No. 3,843,152 and U.S. Registration No. 3,628,974, respectively. Copies of these
14 registrations are attached hereto as Exhibits 2 and 3.

15 66. The Contour systems and methods include know-how: confidential information that
16 derives independent economic value, both actual and potential, from not being generally known to
17 the public or other persons who can obtain economic value from its disclosure and use. The Contour
18 confidential information includes, without limitation:

- 19 ■ the source code and object code used in operating the Contour physical assets;
- 20 ■ many specific functionally-designed mechanisms, such as determining when part of the face
21 is obstructed from the view of certain cameras and seamlessly filling in those parts of the face
22 with views from other cameras;
- 23 ■ certain of the processes used along with the Contour physical assets, such as the timing
24 configurations for the Contour system;
- 25 ■ sequencing the steps of calibration, aperture adjustment and focus adjustment of the Mova
26 cameras;
- 27 ■ specific phosphor-based makeup formulations;

- 1 ▪ techniques for applying makeup to performers being captured;
- 2 ▪ specific electrical set up safety measures of the Contour apparatus;
- 3 ▪ specific electrical modification of fluorescent light ballasts to operate safely;
- 4 ▪ specific performer medical considerations, such as, in the case of performers receiving Botox
- 5 treatments for facial wrinkles, scheduling shoots in specific intervals relative to their
- 6 treatments to maintain natural skin motion;
- 7 ▪ specific instructions to performers on how to perform in such a way to keep their faces within
- 8 the capture volume;
- 9 ▪ specific instructions to performers for specialized moves, such as singing, or bending the
- 10 head downward and upward, with the face going out of and then back into view of the
- 11 cameras; and
- 12 ▪ information regarding Rearden's and Rearden's controlled entities' prior customer
- 13 relationships and business terms.

14 67. Rearden and Rearden Mova have protected this confidential information by, *inter*
 15 *alia*, maintaining email, documents, source and object code, and other software in secure locations;
 16 controlling access to these locations; and by including confidentiality provisions in its agreements
 17 with all of its employees and contractors who have ever had access to any source code, object code,
 18 other software, electrical set up, proprietary electrical circuit designs, timing systems, interconnects,
 19 makeup formulations, phosphor research, results of proprietary tests, etc. The following
 20 confidentiality provisions of a Rearden employment agreement (Rearden referenced as "the
 21 Company"), are representative of those in all other Rearden employment and contractor agreements:

- 22 ▪ "At all times, both during my employment by the Company and after its termination, I will
- 23 keep in confidence and trust and will not use or disclose any Proprietary Information or
- 24 anything relating to it without the prior written consent of an officer of the Company..."
- 25 ▪ "I agree that during my employment by the Company I will not remove any Company
- 26 Documents and Materials from the business premises of the Company or deliver any
- 27 Company Documents and Materials to any person or entity outside the Company, except as I
- 28

1 am required to do in connection with performing the duties of my employment. I further
 2 agree that, immediately upon the termination of my employment by me or by the Company
 3 for any reason ... I will return all Company Documents and Materials, apparatus, equipment
 4 and other physical property, or any reproduction of such property ...”

5 68. The Contour confidential information constitutes trade secrets as that term is defined
 6 in the California Uniform Trade Secrets Act ("CUTSA") at sections 3426 to 3426.11 of the
 7 California Civil Code, and the Defense of Trade Secrets Act at 18 U.S.C. § 1832(b), *et seq.*

8 69. The “Contour Assets” at issue herein include the Contour technology, and related
 9 hardware and software, source code, domestic and international patents and patent applications,
 10 domestic and international trademarks, copyrights, trade secrets, domain names, business records,
 11 and various related physical goods (the “Contour Assets”).

12 **C. Rearden’s use of the Contour program, system, and methods in fifteen major motion**
 13 **pictures, and industry acclaim**

14 70. Rearden and/or its controlled affiliates operated the Contour system for, and
 15 authorized use of its system, methods and Contour program output works by defendant Paramount
 16 Pictures for “*The Curious Case of Benjamin Button*” (2008) and *Transformers: Dark of the Moon*
 17 (2011).

18 71. Rearden and/or its controlled affiliates operated the Contour system for, and
 19 authorized use of its system, methods and Contour program output works by Universal Studios in
 20 *The Incredible Hulk* (2008) and *Snow White and the Huntsman* (2012).

21 72. Rearden and/or its controlled affiliates operated the Contour system for, and
 22 authorized use of its system, methods and Contour program output works by defendant 20th Century
 23 Fox in *Percy Jackson and the Olympians: The Lightning Thief* (2010).

24 73. Rearden and/or its controlled affiliates operated the Contour system for, and
 25 authorized use of its system, methods and Contour program output works by Sony Pictures in *The*
 26 *Amazing Spider-Man* (2012).
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 28

74. Rearden and/or its controlled affiliates operated the Contour system for, and authorized use of its system, methods and Contour program output works by Warner Brothers Studios in *Harry Potter and the Deathly Hallows*, Part 1 (2010) and Part 2 (2011), *Green Lantern* (2011), *Jack the Giant Slayer* (2013), and *Gravity* (2013).

75. And Rearden and/or its controlled affiliates operated the Contour system for, and authorized use of its system, methods and Contour program output works by defendants Disney Pictures Production and/or Disney Pictures in *TRON: Legacy* (2010), *Pirates of the Caribbean: On Stranger Tides* (2011), *John Carter* (2012), and *The Avengers* (2012) (including defendant Marvel).

76. In each of the above fifteen films, the motion picture studios performed a routine intellectual property due diligence prior to contracting with Rearden for use of the Contour systems and methods, in part to verify that Rearden and/or Rearden-controlled affiliates owned the Contour Assets and technology and had the right to use them for the benefit of the studios.

77. Rearden and/or Rearden-controlled affiliates have built considerable good will in the Contour Assets and technology. Rearden and/or Rearden-controlled affiliates used the Contour systems and methods in the fifteen major motion pictures identified above, which collectively grossed roughly \$9.5 billion in global box office. Five of these movies are in the top-25 highest-grossing movies since 2008 (when the first Contour movie was released), including the number one highest grossing movie in each of 2011 and 2012¹⁹. The Contour system and methods and the Contour program have been the subject of numerous motion picture industry press articles in which movie industry luminaries like director David Fincher have lauded the Contour technology:

“Contour’s promise is enormous,” Fincher said. “The notion that the human face in all its subtleties could be mapped in real time and with such density of surface information opens up so many possibilities for both two- and three-dimensional image makers and storytellers.”²⁰

¹⁹ www.boxofficemojo.com.

²⁰ Marlowe, July 31, 2006, *op. cit.*

The Contour system and methods and the Contour program have been the subject of an invited presentation by Steve Perlman to the Director's Guild of America²¹, and they were identified as a "breakthrough" in the TED talk.²² Contour's improvements over prior facial performance capture technologies have been acclaimed by major motion picture actors, producers, directors, and top VFX professionals, including Ed Ulbrich in his TED Talk description of Contour and how it was essential in the creation of *The Curious Case of Benjamin Button*.²³ And on February 9, 2015, the Academy of Motion Picture Arts and Sciences awarded the Scientific and Technical Award to the MOVA [Contour] facial performance capture system.²⁴

D. Transfer of the Contour Assets to OnLive, Inc., OL2, Inc., and Rearden Mova

78. Rearden's Contour assets, intellectual property, and apparatus (the "Contour Assets") as well as Rearden's other motion capture assets, along with videogame streaming technology, was spun out of Rearden on or about July 2, 2007 into OnLive, Inc., a corporation controlled by Rearden. OnLive, Inc. owned all of the Contour Assets at that time.

79. On or about August 17, 2012, OnLive, Inc. assigned all of its assets, including the Contour Assets, to OL2, Inc. as part of an assignment for the benefit of creditors ("ABC").

80. On or about October of 2012, Rearden learned that OL2, Inc. was interested in selling the Contour Assets and apparatus, and Rearden decided to reacquire them. Rearden formed a wholly owned subsidiary, MO2, LLC, as a vehicle to acquire the Contour Assets from OL2, Inc.

81. On or about February 11, 2013, OL2, Inc. transferred the Contour Assets to MO2 LLC through a Membership Interest and Asset Purchase and Sale Agreement. MO2 LLC is wholly owned by Rearden.

82. On or about April 19, 2013, MO2 LLC transferred the Contour Assets to another wholly owned Rearden company, plaintiff Rearden Mova LLC.

²¹ Directors Guild of America, July 28, 2007, *op. cit.* http://ishindler.com/articles/DGA_Digital_Day_flyer07.pdf

²² *Op. cit.*

²³ Ulbrich, *Op. cit.*

²⁴ <https://www.oscars.org/sci-tech/ceremonies/2015>

1 83. On or about September 18, 2014, Rearden recorded patent assignments for the
2 Contour Asset patents, reflecting the assignment from OL2, Inc. to MO2 LLC made in the
3 Membership Interest and Asset Purchase and Sale Agreement.

4 84. Rearden also recorded patent assignments for the Contour Asset patents, reflecting the
5 assignment from MO2 LLC to Rearden Mova on or about April 19, 2013. However, the execution
6 dates of the online forms were incorrectly filled in with the recordation dates of September 18, 2014
7 (and in one case, September 8, 2014). As soon as it became aware of the errors, Rearden corrected
8 the erroneous execution dates to the correct date: April 19, 2013.

9 **E. Shenzhenshi's transparently false ownership claims**

10 85. Unknown to Rearden, starting in October 2012, rogue Rearden employee LaSalle was
11 in negotiation with a company called Digital Domain 3.0, Inc. ("DD3"), then a People's Republic of
12 China and India-owned Delaware Corporation doing business in Venice Beach, California under
13 "DD3" or "Digital Domain" business names. DD3 is a successor company to prior Digital Domain
14 companies that Rearden, OnLive, Inc., and LaSalle (on behalf of Rearden and OnLive, Inc.) had
15 worked with previously in movie productions making authorized use of the Contour technology
16 identified above. DD3 is currently wholly owned by Digital Domain Holdings Ltd. ("DDHL"), a
17 Hong Kong exchange-listed Bermuda corporation with its principal place of business in Hong Kong.

18 86. On February 20, 2015, Shenzhenshi Haitiecheng Science and Technology Co., Ltd.
19 ("Shenzhenshi"), allegedly another People's Republic of China corporation with its purported
20 principal place of business in Shenzhen, China, filed a declaratory judgment action against Rearden
21 and various other Rearden entities in this judicial district, Case No. 3:15-cv-00797-JST, alleging that
22 it had acquired the Contour Assets by assignment from MO2 LLC on May 8, 2013. Shenzhenshi
23 further alleged that it had granted an exclusive license to the Contour Assets to DD3.

24 87. But as set forth above, MO2 LLC did not own the Contour Assets on May 8, 2013, so
25 it could not have assigned them to Shenzhenshi on that date. Rather, MO2 LLC had previously
26 assigned the Contour Assets to Rearden Mova LLC on April 19, 2013. Further, on May 8, 2013,
27 LaSalle was not a Rearden employee, and as an employee or not, LaSalle never had authority to sell
28

1 the MO2 LLC Assets to anyone. Nor could Shenzhenshi have granted a license of the Contour
 2 Assets to Digital Domain because it never owned the Contour Assets. Shenzhenshi, DD3 and LaSalle
 3 knew that the MO2-Shenzhenshi transaction was a ruse. LaSalle wrote to his attorneys, “[DD3] are
 4 going to actually acquire the Contour Assets through one of their Chinese companies [Shenzhenshi].
 5 I believe this is so it would be nearly impossible for Steve [Perlman] to go after them.... They will
 6 indemnify me against any claims brought by Rearden and Steve Perlman.”²⁵

7 88. The day after the Court granted Rearden permission to file counterclaims, a company
 8 called Virtue Global Holdings, Ltd., a British Virgin Islands corporation, suddenly appeared in the
 9 Shenzhenshi case represented by Shenzhenshi’s counsel. Shenzhenshi absconded from the litigation.
 10 Months later Virtue Global Holdings alleged that Shenzhenshi had assigned the Contour Assets to
 11 Virtue Global Holdings on December 17, 2015. But again, as set forth above, Shenzhenshi never
 12 owned the Contour Assets and therefore could not have assigned them to Virtue Global Holdings.

13 89. Rearden asserted counterclaims for declaratory relief against Shenzhenshi and Virtue
 14 Global Holdings affirming Rearden’s ownership of the Contour Assets, and for patent, trademark,
 15 and copyright infringement, misappropriation of trade secrets, fraudulent transfer, and other causes
 16 of action, against Shenzhenshi and Virtue Global Holdings.

17 90. The Contour Asset ownership and fraudulent transfer claims were bifurcated and tried
 18 in December 2016. On August 11, 2017, the Court entered a statement of decision in Rearden’s
 19 favor. It found that Rearden had at all material times been the owner of the Contour Assets,
 20 apparatus, and program.

21 **F. Defendants’ unauthorized use of the Contour Assets**

22 91. Once LaSalle was hired by DD3 in or about May 2013, DD3 took possession of the
 23 Contour Assets as licensee of Shenzhenshi. On information and belief, LaSalle had access to the
 24 secure storage facility where the Contour Assets were kept, and assisted DD3 in taking unauthorized
 25 possession of the patented Contour apparatus and copies of the copyrighted Contour program.

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 27
 28 ²⁵ *Shenzhenshi, et al. v. Rearden, et al.*, NDCA Case No. 15-797, HEYL001594.

1 92. Thereafter, DD3 began secretly offering Contour facial performance capture services
2 and Contour program output works to motion picture studios and production companies, including
3 defendants.

4 93. But even before Shenzhenshi allegedly acquired the Contour Assets, and before DD3
5 began offering Contour facial performance capture services and output works, The Walt Disney
6 Company and DD3 were in negotiation to acquire the Contour Assets. LaSalle testified that from
7 “September of 2012... [u]ntil sometime in April of 2013” he spoke to “The CTO of the Walt Disney
8 Company,” “[s]omebody at Industrial Light and Magic²⁶, and the president of Digital Domain” about
9 “potential partnerships or acquisitions of [the] Mova [Assets]”²⁷. Ken Pearce, LaSalle’s accomplice
10 and another rogue Rearden former employee, testified that “after October 2nd [, 2012] – [he] talked
11 with ILM and Disney about the Mova assets”²⁸. LaSalle testified that his “discussions with Digital
12 Domain, Industrial Light and Magic and Walt Disney” were exclusively “about licensing or
13 acquiring [the Mova asset].”²⁹ Former DD3 Chairman Seah Ang testified that in “early 2013”, then
14 DD3 CEO Ed Ulbrich told him that “Mova is for sale and ... if we don’t take this asset, this asset
15 will soon go to our competitor ... Industrial Light & Magic, and also Disney.”³⁰ On February 1,
16 2013, Pearce emailed Disney’s Chief Technical Officer, Andy Hendrickson, to set up a conference to
17 discuss The Walt Disney Company acquiring “all the MOVA assets (patents, software, etc.).”
18 Hendrickson had been talking internally at The Walt Disney Company “about MOVA,” and agreed
19 to confer with LaSalle on February 14³¹:
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23
24 ²⁶ Industrial Light & Magic, AKA ILM, was acquired by the Walt Disney Company in late 2012.

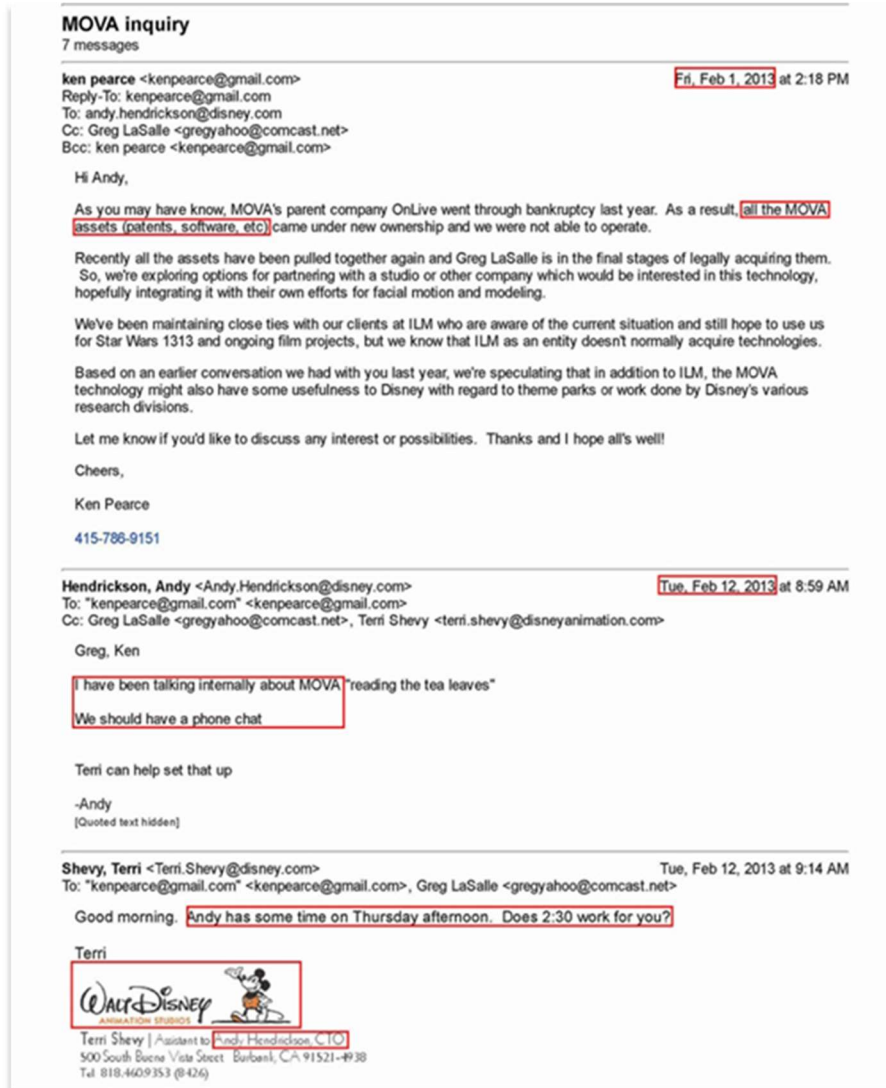
25 ²⁷ *Shenzhenshi, et al. v. Rearden, et al.*, NDCA Case No. 15-797, Dkt. 385 at 148-149.

26 ²⁸ *Shenzhenshi, et al. v. Rearden, et al.*, NDCA Case No. 15-797, Dkt. 385 at 69.

27 ²⁹ *Shenzhenshi, et al. v. Rearden, et al.*, NDCA Case No. 15-797, Dkt. 383 at 168:169.

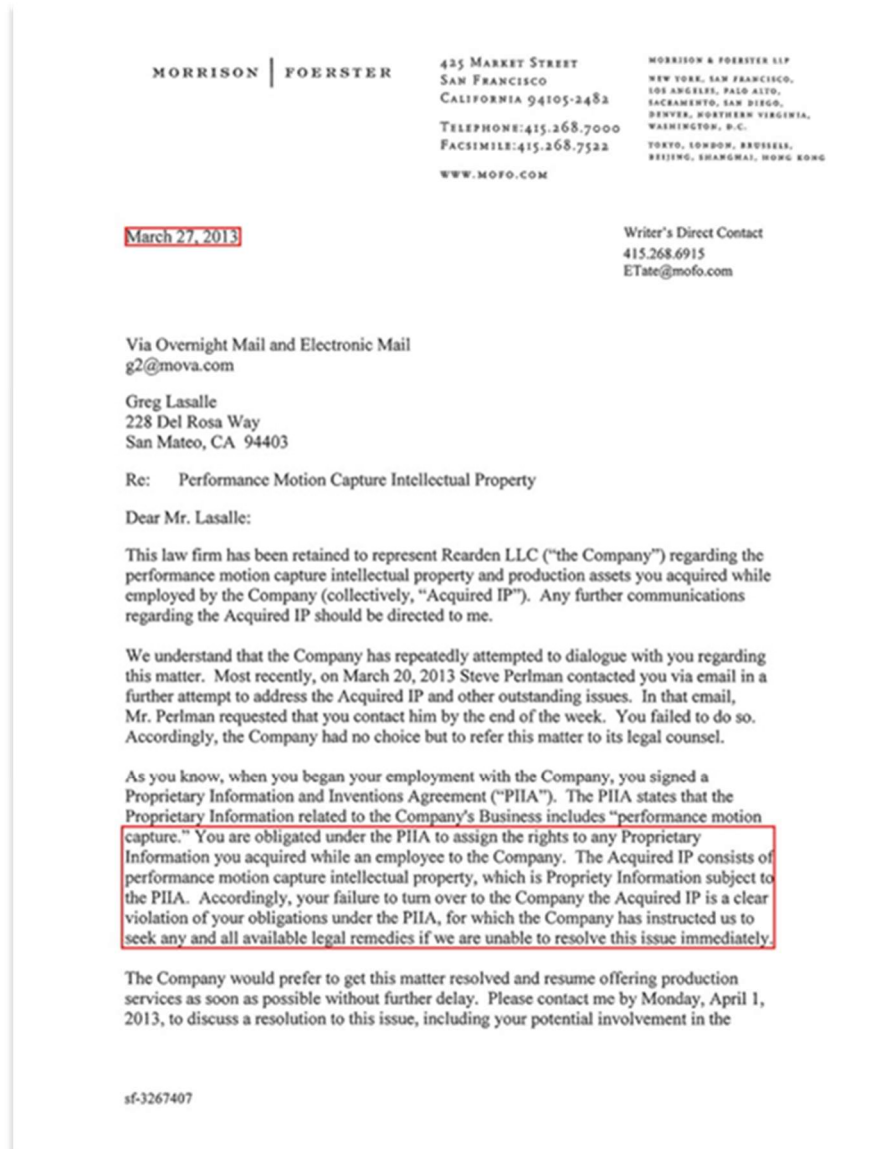
28 ³⁰ *Shenzhenshi, et al. v. Rearden, et al.*, NDCA Case No. 15-797, Dkt. 385 at 88.

³¹ *Shenzhenshi, et al. v. Rearden, et al.*, NDCA Case No. 15-797, SHST0007127. Red
highlighting boxes added.



94. On March 27, 2013, Rearden wrote LaSalle a demand letter (the “Rearden Demand Letter”) asserting that LaSalle was contractually obligated to return to Rearden “performance motion capture intellectual property,” which LaSalle was then in negotiations to sell to Disney and which The Walt Disney Company knew included at least “patents” and “software.”³²

³² *Shenzhenshi, et al. v. Rearden, et al.*, NDCA Case No. 15-797, HEYL000306-HEYL000307 (Red highlighting boxes added).



95. LaSalle notified The Walt Disney Company that he had received the Rearden Demand Letter and as a result, The Walt Disney Company "dropped out" of the running to acquire the Contour Assets.³³ Only DD3 remained, but after receiving the Rearden Demand Letter, it also declined to acquire the Contour Assets itself, and instead had its shadowy foreign affiliate Shenzhenshi acquire the Contour Assets and license them back to DD3 "...so it would be nearly impossible for Steve [Perlman] to go after them."³⁴

³³ *Shenzhenshi, et al. v. Rearden, et al.*, NDCA Case No.15-797, Dkt: 383, p. 169, *op. cit.*

³⁴ *Shenzhenshi, et al. v. Rearden, et al.*, NDCA Case No.15-79717, HEYL001594, *op. cit.*

1 96. On or about February 6, 2015, The Hollywood Reporter published an article entitled
 2 “Oscars SciTech Awards Hit by Visual Effects Credit Dispute (Exclusive).” The article reported on
 3 the contents of a letter that Steve Perlman, Rearden’s CEO, had sent to the Academy of Motion
 4 Picture Arts and Sciences Science and Technology Council, arguing that the “core members” of the
 5 R&D team responsible for the development of the Contour system and software were not being
 6 recognized. The article also reported:

7 Compounding the situation is a bitter disagreement over licensing of
 8 the technology, as Perlman makes a related claim that LaSalle and
 9 Digital Domain used MOVA technology for Marvel's megahit film
 Guardians of the Galaxy, but “I never granted Digital Domain a
 license.”

10 On information and belief, employees and executives of Disney Enterprises, Disney Pictures
 11 Production, Disney Pictures, Marvel, and MVLP, read or were made aware of this article, including
 12 the fact that Rearden claimed ownership of the Contour Assets and the related intellectual property,
 13 and had never granted DD3 a license to use them.

14 97. Despite the fact that The Walt Disney Company was sufficiently concerned about the
 15 Rearden Demand Letter to drop out of acquiring the Contour Assets that it knew included at least
 16 patents and software, despite the fact that it knew that Rearden had owned and claimed to still own
 17 the Contour Assets that included patents and other intellectual property, and it knew that Rearden
 18 had asserted in the demand letter that LaSalle was unlawfully in possession of the Contour Assets,
 19 Defendants nonetheless contracted with DD3, either directly or through entities subject to their
 20 direction and control, for use of the Contour Assets on at least three major motion pictures *without*
 21 *ever contacting Rearden.*

22 **1. Guardians of the Galaxy**

23 98. *Guardians of the Galaxy* is a motion picture produced by defendant Marvel.

24 99. As of March 31, 2015, defendant Infinity Productions contracted with DD3 to provide
 25 facial performance capture services and output works made with the patented Contour systems and
 26 methods and the copyrighted Contour program, including at least the performance of actor Josh
 27 Brolin as the character Thanos in *Guardians of the Galaxy*.
 28

1 100. Infinity Productions was formed and wholly owned by defendant MVLP, as its sole
2 member. At all material times, Infinity Productions was dominated and controlled by, and served as a
3 mere instrumentality, agent, conduit, and alter ego of, defendant MVLP. Infinity Productions has no
4 business other than the production of the *Guardians of the Galaxy* film. On information and belief,
5 Infinity Productions has no source of revenue or profit, and serves as a mere conduit for passing
6 *Guardians of the Galaxy* production expenses on to or through MVLP for reimbursement.
7 Furthermore, on information and belief, MVLP authorized Infinity Productions to use Marvel assets
8 including Marvel characters as its own without compensation to Marvel, and MVLP authorized
9 Marvel to market, distribute, and profit from Infinity Productions's only asset—the product of its
10 work on the *Guardians of the Galaxy* film—as Marvel's own without license from or compensation
11 to Infinity Productions. MVLP authorized Infinity Productions to use Marvel employees and officers
12 as its own pursuant to a Lending Services Agreement without compensation from Infinity
13 Productions. MVLP authorized the transfer of Infinity Productions's only asset—the product of its
14 work on the *Guardians of the Galaxy* film—to Marvel without adequate compensation. None of the
15 revenue earned from the *Guardians of the Galaxy* film was booked by Infinity Productions, and
16 Infinity Productions had no other source of revenue, such that at all material times Infinity
17 Productions was MVLP's severely undercapitalized pass-through shell entity. Infinity Productions
18 shares the same principal place of business with MVLP. MVLP dominated the finances, policies,
19 and practices of Infinity Productions such that Infinity Productions had no separate existence, and
20 served as a mere business conduit of MVLP. It would be inequitable to respect the separate
21 corporate identity of Infinity Productions in view of at least its severely inadequate capitalization, the
22 transfer of its assets without adequate compensation, and commingling of assets with or through
23 MVLP.

24 101. Defendants Marvel, MVLP, and Infinity Productions, through their officers,
25 employees, and agents, reviewed color and grayscale Contour output works capturing Brolin's
26 performance and bearing Rearden's copyright notice on the first frame. The below images show still
27 frames from Contour output works capturing one of Brolin's performances:
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They are, left to right, one of three Skin Texture output works, one of twenty-two Makeup Pattern output works, one Captured Surface output work, and one Tracking Mesh output work. *Each* of the *twenty-five* Skin Texture and Makeup Pattern Contour output works of *each capture* of Brolin's performance bears Rearden's Contour copyright notice on its first frame. And there were many captures of Brolin's performance. Thus, any review of Brolin's captures would have resulted in defendants Marvel, MVLP, and Infinity Productions, through their officers, employees and agents, seeing a vast number of Rearden copyright notices, each bearing the year, date, and time of the capture, constantly reminded that Rearden LLC was asserting its copyright in the Contour program and the Contour program works from the Brolin capture sessions.

102. At all material times, DD3 provided Contour facial performance capture services subject to the terms of its contract with, and subject to the supervision and control of, defendants Marvel, MVLP, and Infinity Productions. Each time that DD3 operated the Contour system, whether to capture performances or to process the captured performances into 3D output works, the computers made a copy of the Contour program in their central processing unit's ("CPU") random access memory ("RAM") without authorization from Rearden. Defendants Marvel, MVLP, and Infinity Productions incorporated the output works of the patented Contour systems and methods and copyrighted Contour program to animate CG characters that were reproduced, distributed, displayed, and performed in *Guardians of the Galaxy*. The following photograph was used by defendants

1 Marvel, MVLP, and Infinity Productions to promote the use of the Contour facial motion capture
2 technology in the film, followed by a close-up of the Thanos character's face:



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22 103. Defendants Marvel, MVLP, and Infinity Productions knew or should have known that
23 the patented Contour systems and methods and copyrighted Contour program were owned by
24 Rearden and/or other Rearden-controlled entities because:

- 25 ■ In October 2008, Steve Perlman met with ten senior Walt Disney Company executives,
26 including CEO Bob Iger, on two occasions to discuss purchase of or investment in Rearden-
27

1 controlled OnLive. At both meetings, Perlman presented a PowerPoint presentation that
2 touted OnLive's MOVA Contour technology and its potential for Walt Disney Company's
3 film and videogame businesses.

- 4 ■ Walt Disney Company had been notified that the Contour Assets included at least "patents"
5 and "software."
- 6 ■ Marvel, MVLP, and Infinity Productions, through their officers, employees, and agents,
7 reviewed color and grayscale Contour output works that were consistently and extensively
8 marked with Rearden's Contour copyright notice.
- 9 ■ Walt Disney Company was notified of the Rearden Demand Letter, which confirmed that
10 Rearden employee LaSalle was unlawfully in possession of the Contour Assets. Upon
11 conducting due diligence, Disney Company dropped out of the running to acquire the
12 Contour Assets.³⁵
- 13 ■ Walt Disney Company, Disney Pictures Production, Disney Pictures, and/or Marvel had
14 previously contracted with Rearden and/or its controlled entities to provide authorized facial
15 performance capture services and Contour program output works for use in *TRON: Legacy*
16 (2010), *Pirates of the Caribbean: On Stranger Tides* (2011), *John Carter* (2012), and *The*
17 *Avengers* (2012), and performed intellectual property due diligence.
- 18 ■ On information and belief, Marvel, MVLP, and/or Infinity Productions performed intellectual
19 property due diligence when they contracted with DD3 to provide Contour facial
20 performance capture and output works. Based upon their due diligence, Disney Company,
21 Marvel, MVLP, and Infinity Productions knew or should have known that DD3 did not have
22 the right to offer or provide facial performance capture services and output works made using
23 the patented Contour system and copyrighted Contour program.

24 104. Neither Rearden nor Rearden Mova authorized use of the patented Contour systems
25 and methods and copying of the copyrighted Contour program by DD3, defendants Marvel, MVLP,
26 and Infinity Productions, or any other entity associated with *Guardians of the Galaxy*.

27 ³⁵ *Shenzhenshi, et al. v. Rearden, et al.*, NDCA Case No. 15-797, Dkt: 383, p. 169, *op. cit.*
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105. Defendant Disney Enterprises, through a subsidiary subject to its direction and control, distributed *Guardians of the Galaxy* in domestic theaters on July 21, 2014. To date, the film has grossed over \$333 million at the box office in the United States and \$773 million globally.³⁶ It was the third highest-grossing film released in 2014, both domestically and worldwide.³⁷

106. Defendant Disney Enterprises, through a subsidiary subject to its direction and control, distributed *Guardians of the Galaxy* on DVD and Blu-ray, and via digital distribution such as download and streaming services in the United States on or about December 9, 2014. DVD and Blu-ray sales in the United States exceeded \$131 million. Defendant Disney Enterprises, through a subsidiary subject to its direction and control, also distributed *Guardians of the Galaxy* across a wide range of other distribution means, such as on airplanes, in hotels, through cable and satellite television services, etc.

2. *Avengers: Age of Ultron*

107. *Avengers: Age of Ultron* is a motion picture produced by defendant Marvel.

108. As of January 15, 2015, defendant Assembled Productions contracted with DD3 to provide facial performance capture services and output works made with the patented Contour systems and methods and the copyrighted Contour program, including at least Josh Brolin's reprisal of the Thanos character.

109. Assembled Productions was formed and wholly owned by defendant MVLP, as its sole member. At all material times, Assembled Productions was dominated and controlled by, and served as a mere instrumentality, agent, conduit, and alter ego of, defendant MVLP. Assembled Productions has no business other than the production of the *Avengers: Age of Ultron* film. On information and belief, Assembled Productions has no source of revenue or profit, and serves as a mere conduit for passing *Avengers: Age of Ultron* production expenses on to or through MVLP for reimbursement. Furthermore, on information and belief, MVLP authorized Infinity Productions to use Marvel assets including Marvel characters as its own without compensation to Marvel, and

³⁶ <http://www.boxofficemojo.com/movies/?id=marvel2014a.htm>.

³⁷ <http://www.boxofficemojo.com/yearly/chart/?yr=2014>,
<http://www.boxofficemojo.com/alltime/world/>.

1 MVLP authorized Marvel to market, distribute, and profit from Assembled Productions's only
2 asset—the product of its work on the *Avengers: Age of Ultron* film—as Marvel's own without
3 license from or compensation to Assembled Productions. MVLP authorized Assembled Productions
4 to use Marvel employees and officers as its own pursuant to a Lending Services Agreement without
5 compensation from Infinity Productions. MVLP authorized the transfer of Assembled Productions's
6 only asset—the product of its work on the *Avengers: Age of Ultron* film—to Marvel without
7 adequate compensation. None of the revenue earned from the *Avengers: Age of Ultron* film was
8 booked by Assembled Productions, and Assembled Productions had no other source of revenue, such
9 that at all material times Assembled Productions was MVLP's severely undercapitalized pass-
10 through shell entity. Assembled Productions shares the same principal place of business with MVLP.
11 MVLP dominated the finances, policies, and practices of Assembled Productions such that
12 Assembled Productions had no separate existence and served as a mere business conduit of MVLP.
13 It would be inequitable to respect the separate corporate identity of Assembled Productions in view
14 of at least its severely inadequate capitalization, the transfer of its assets without adequate
15 compensation, and commingling of assets with or through MVLP.

16 110. Defendants Marvel, MVLP, and Assembled Productions, through their officers,
17 employees, and agents, reviewed color and grayscale Contour output works capturing Brolin's
18 performance and bearing Rearden's copyright notice.

19 111. At all material times, DD3 provided Contour facial performance capture services
20 subject to the terms of its contract with, and subject to the supervision and control of, defendants
21 Marvel, MVLP, and Assembled Productions. Each time that DD3 operated the Contour system,
22 whether to capture performances or to process the captured performances into 3D output works, the
23 computers made a copy of the Contour program in their CPU's RAM without authorization from
24 Rearden. Defendants Marvel, MVLP, and Assembled Productions incorporated the output works of
25 the patented Contour systems and methods and copyrighted Contour program to animate CG
26 characters that were reproduced, distributed, displayed, and performed including at least the same
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28

Thanos CG character from *Guardians of the Galaxy*, appearing in the closing credits of *Avengers: Age of Ultron*:



112. Defendants Marvel, MVLP, and Assembled Productions knew or should have known that the patented Contour systems and methods and copyrighted Contour program were owned by Rearden and/or other Rearden-controlled entities at least because:

- In October 2008, Steve Perlman met with ten senior Disney Company executives, including CEO Bob Iger, on two occasions to discuss purchase of or investment in Rearden-controlled OnLive. At both meetings, Perlman presented a PowerPoint presentation that touted OnLive's MOVA Contour technology and its potential for Disney Company's film and videogame businesses.
- Disney Company had been notified that the Contour Assets included at least "patents" and "software."
- Defendants, Marvel, MVLP, and Assembled Productions, through their officers, employees, and agents, reviewed color and grayscale Contour output works that were consistently and extensively marked with Rearden's Contour copyright notice.
- Disney Company was notified of the Rearden Demand Letter, which confirmed that Rearden employee LaSalle was unlawfully in possession of the Contour Assets that Disney Company

1 knew included at least “patents” and “software.” Upon conducting due diligence, Disney
 2 Company had dropped out of the running to acquire the Contour Assets.³⁸

- 3 ▪ Disney Pictures Production, Disney Pictures, and/or Marvel had previously contracted with
 4 Rearden and/or its controlled entities to provide authorized facial performance capture
 5 services and Contour program output works for use in *TRON: Legacy* (2010), *Pirates of the*
 6 *Caribbean: On Stranger Tides* (2011), *John Carter* (2012), and *The Avengers* (2012)
 7 (including defendant Marvel), and had performed intellectual property due diligence.
- 8 ▪ On information and belief, defendants Marvel, MVLP, and/or Assembled Productions
 9 performed intellectual property due diligence when they contracted with DD3 to provide
 10 Contour facial performance capture and output works. Based upon its due diligence,
 11 defendants Marvel, MVLP, and Assembled Productions knew or should have known that
 12 DD3 did not have the right to offer or provide facial performance capture services and output
 13 works made using the patented Contour system and copyrighted Contour program.

14 113. Neither Rearden nor Rearden Mova authorized use of the patented Contour systems
 15 and methods and copying of the copyrighted Contour program by DD3, defendants Marvel, MVLP,
 16 or Assembled Productions, or any other entity associated with *Avengers: Age of Ultron*.

17 114. Defendant Disney Enterprises, through a subsidiary subject to its direction and
 18 control, distributed *Avengers: Age of Ultron* in domestic theaters on or about April 13, 2015. The
 19 film has grossed over \$459 million at the box office in the United States, and over \$1.4 billion
 20 worldwide.

21 115. Defendant Disney Enterprises, through a subsidiary subject to its direction and
 22 control, distributed *Avengers: Age of Ultron* on DVD and Blu-ray, and by digital distribution such as
 23 download and streaming services on or about October 2, 2015. DVD and Blu-ray sales in the United
 24 States exceed \$79 million. Defendant Disney Enterprises, through a subsidiary subject to its direction
 25 and control also distributed *Avengers: Age of Ultron* across a wide range of other distribution means,
 26 such as on airplanes, in hotels, through cable and satellite television services, etc.

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 28 ³⁸ *Shenzhenshi, et al. v. Rearden, et al.*, NDCA Case No. 15-797, Dkt: 383, p. 169, *op. cit.*

1 **3. *Beauty and the Beast***

2 116. *Beauty and the Beast* is a motion picture produced by defendant Disney Pictures
3 Production and/or Disney Pictures.

4 117. As of March 31, 2015, defendant Chip Pictures contracted with DD3 to provide facial
5 performance capture services using copies of the copyrighted Contour program, including at least the
6 performance of actor Dan Stevens as the Beast character.

7 118. Defendant Chip Pictures was formed and wholly owned by defendant Disney
8 Enterprises, as sole shareholder of Chip Pictures. At all material times, Chip Pictures was dominated
9 and controlled by, and served as a mere instrumentality, agent, conduit, and alter ego of, defendant
10 Disney Enterprises. Chip Pictures has no business other than production of the *Beauty and the Beast*
11 film. On information and belief, Chip Pictures has no source of revenue or profit, and serves as a
12 mere conduit for passing *Beauty and the Beast* production expenses on to or through Disney
13 Enterprises and/or other entities wholly owned by Disney Enterprises for reimbursement.

14 Furthermore, on information and belief, Disney Enterprises authorized Chip Pictures to use Disney
15 assets including the animated *Beauty and the Beast* (1991) characters, script, songs, and/or music, as
16 its own without adequate compensation, and Disney Enterprises authorized other entities that were
17 wholly-owned by Disney Enterprises to market, distribute, and profit from Chip Pictures's only
18 asset—the product of its work on *Beauty and the Beast*—without adequate compensation. Disney
19 Enterprises authorized Chip Pictures to use officers and employees of other entities that were wholly
20 owned by Disney Enterprises as Chip Pictures's own officers and agents without compensation from
21 Chip Pictures. Disney Enterprises authorized the transfer of Chip Pictures's only asset—the product
22 of its work on *Beauty and the Beast*—without adequate compensation. None of the revenue earned
23 from *Beauty and the Beast* was booked by Chip Pictures, and Chip Pictures had no other source of
24 revenue, such that at all material times Chip Pictures was Disney Enterprises's severely
25 undercapitalized pass-through shell entity. Chip Pictures shares the same principal place of business
26 with Disney Enterprises. Disney Enterprises dominated the finances, policies, and practices of Chip
27 Pictures such that defendant Chip Pictures had no separate existence, and served as a mere business
28

1 conduit for Disney Enterprises. It would be inequitable to respect the separate corporate identity of
2 Chip Pictures in view of at least its severely inadequate capitalization, the transfer of its assets
3 without adequate compensation, and commingling of assets with or through Disney Enterprises
4 and/or other entities wholly owned by Disney Enterprises.

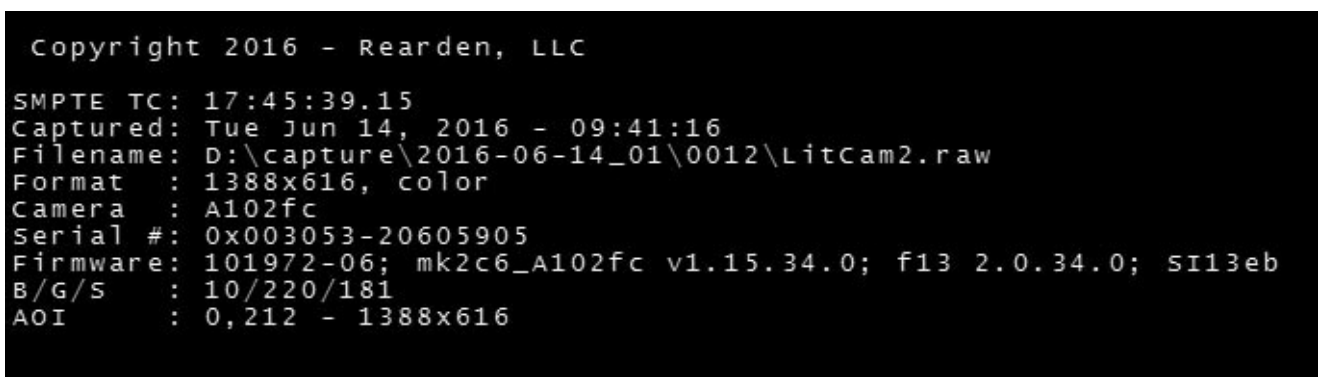
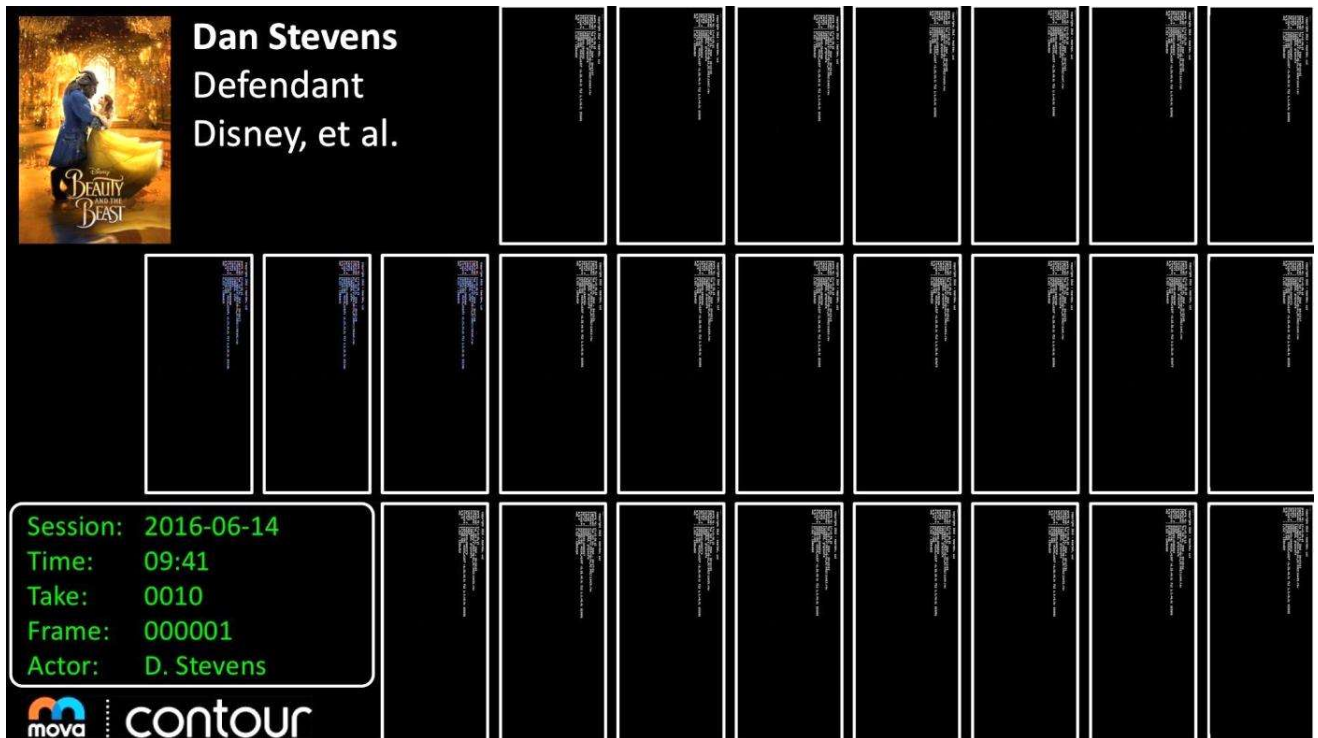
5 119. Defendants Disney Pictures Production, Disney Pictures, and/or Chip Pictures,
6 through their officers, employees, and agents, reviewed color and grayscale Contour output works
7 capturing Stevens's performance and bearing Rearden's copyright notice.

8 120. DD3 provided Contour facial performance capture services subject to the terms of its
9 contract with, and subject to the supervision and control of, defendants Disney Pictures Production,
10 Disney Pictures, and/or Chip Pictures. Each time that DD3 operated the Contour system, whether to
11 capture performances or to process the captured performances into 3D output works, the computers
12 made a copy of the Contour program in their CPU's RAM without authorization from Rearden.
13 Defendants Disney Pictures Production, Disney Pictures, and/or Chip Pictures incorporated the
14 output works of the patented Contour systems and methods and copyrighted Contour program to
15 animate CG characters that were reproduced, distributed, displayed, and performed in *Beauty and the*
16 *Beast*.

17 121. Defendants Disney Pictures Production, Disney Pictures, and/or Chip Pictures knew
18 or should have known that the patented Contour systems and methods and copyrighted Contour
19 program were owned by Rearden and/or other Rearden-controlled entities because:

- 20 ■ In October 2008, Steve Perlman met with ten senior Walt Disney Company executives,
21 including CEO Bob Iger, on two occasions to discuss purchase of or investment in Rearden-
22 controlled OnLive. At both meetings, Perlman presented a PowerPoint presentation that
23 touted OnLive's MOVA Contour technology and its potential for Walt Disney Company's
24 film and videogame businesses.
- 25 ■ Walt Disney Company was notified that the Contour Assets included at least "patents" and
26 "software."

- Disney Pictures Production, Disney Pictures, and/or Chip Pictures, through their officers, employees, and agents, reviewed color and grayscale Contour output works that were consistently and extensively marked with Rearden's Contour copyright notice. For example, the below images show the Rearden copyright notice of the first frame of twenty-five Contour output works, with one frame enlarged. This is followed by still images from the second frame of the twenty-five Contour output works, showing the color and grayscale images of the Skin Texture and Makeup Pattern output works.





- Walt Disney Company was notified of the Rearden Demand Letter, which confirmed that Rearden employee LaSalle was unlawfully in possession of the Contour Assets. Upon conducting due diligence, Disney Company had dropped out of the running to acquire the Contour Assets.³⁹
- Walt Disney Company, Disney Pictures Production, and/or Disney Pictures had previously contracted with Rearden and/or its controlled entities to provide authorized facial performance capture services and Contour program output works for use in *TRON: Legacy* (2010), *Pirates of the Caribbean: On Stranger Tides* (2011), *John Carter* (2012), and *The Avengers* (2012), and had performed intellectual property due diligence.
- On information and belief, Disney Pictures Production, Disney Pictures, and/or Chip Pictures performed intellectual property due diligence when they contracted with DD3 to provide Contour facial performance capture and output works. Based upon its due diligence, Disney Pictures Production, Disney Pictures, and/or Chip Pictures knew or should have known that

³⁹ *Shenzhenshi, et al. v. Rearden, et al.*, NDCA Case No. 15-797, Dkt: 383, p. 169, *op. cit.*

DD3 did not have the right to offer or provide facial performance capture services and output works made using the patented Contour system and copyrighted Contour program.

122. Neither Rearden nor Rearden Mova authorized copying of the copyrighted MOVA Contour program by DD3, Disney Enterprises, Disney Pictures Production, Disney Pictures, and/or Chip Pictures, or any other entity associated with *Beauty and the Beast*.

123. Defendants Disney Enterprises, Disney Pictures Production, and/or Disney Pictures distributed *Beauty and the Beast*, through entities wholly owned by Disney Enterprises, in domestic theaters on or about March 17, 2017. The film has grossed over \$500 million at the box office in the United States, and over \$1.25 billion globally.⁴⁰

124. Defendants Disney Enterprises, Disney Pictures Production, and/or Disney Pictures distributed *Beauty and the Beast*, through entities wholly owned by Disney Enterprises, on DVD and Blu-ray, and via digital distribution such as download and streaming services on or about June 6, 2017. Many of the DVD, Blu-ray and digitally distributed versions of *Beauty and the Beast* included the Bonus Featurette entitled “*A Beauty of a Tale*” that showed how the Contour system was used in the creation of the Beast, including Contour program output works. Defendants Disney Enterprises, Disney Pictures Production, and/or Disney Pictures also distributed “*Beauty of a Tale*,” through entities wholly owned by Disney Enterprises, showing how Contour was used, including Contour program output works as a promotion for the DVD, Blu-ray, and digital distribution release on USA Today’s website, where it is publicly available for streaming over the Internet.⁴¹ Defendants Disney Enterprises, Disney Pictures Production, and/or Disney Pictures have earned many millions of dollars from DVD, Blu-ray, and digital distribution as of the date of this complaint. Defendants Disney Enterprises, Disney Pictures Production, and/or Disney Pictures also distributed *Beauty and the Beast*, through entities wholly owned by Disney Enterprises, across a wide range of other distribution means, such as on airplanes, in hotels, through cable and satellite television services. The profits were ultimately booked by Disney Pictures.

⁴⁰ <http://www.boxofficemojo.com/movies/?id=beautyandthebeast2017.htm>.

⁴¹ Truitt, *op. cit.*

**FIRST CAUSE OF ACTION:
VICARIOUS AND CONTRIBUTORY COPYRIGHT INFRINGEMENT
(DEFENDANTS MARVEL, MVLP, ASSEMBLED PRODUCTIONS AND INFINITY
PRODUCTIONS)**

125. Plaintiffs reallege and incorporate each and every allegation contained in the paragraphs above with the same force and effect as if they were fully set forth here.

Rearden's Copyright in the Contour Program.

126. The Contour program is an original literary work of authorship by Rearden-employed programmers.

127. The Contour program was fixed in a tangible medium of expression when it was completed and stored in non-volatile computer memory and/or media such as computer hard drives, CD, CD-R, DVD, or Blu-ray disks from which it may be perceived, reproduced, or otherwise communicated for a period of more than transitory duration. Accordingly, the Contour program is a valid subject of copyright protection.

128. Rearden's programmers duly assigned their copyrights in the Contour program to Rearden. At the times of all acts of infringement alleged herein, Plaintiff Rearden Mova was and is the owner of intellectual property and copyright vested in the Contour program, and United States Copyright Registration No. TXu001977151.

DD3's Direct Infringement of Rearden's Copyright.

129. Each time that DD3 operated the Contour apparatus, whether for facial performance capture or for processing captures into output works, the computers made an unauthorized copy of the Contour program in their central processing unit's ("CPU") random access memory ("RAM"). Each such copy is a violation of Rearden's exclusive right to authorize copies of its Contour program under 17 U.S.C. § 106 (1), and therefore each copy is an act of direct copyright infringement by DD3.

***Defendants' Vicarious Liability for DD3's Infringement*⁴²**

130. Defendants Assembled Productions, and Infinity Productions, through employees and agents of defendant Marvel and/or MVLP, contracted with DD3 for facial performance capture services and output works using copies of the Contour program for *Guardians of the Galaxy* and *Avengers: Age of Ultron*. At all material times during DD3's performance of the facial performance capture contracts, Defendants Marvel, MVLP, Assembled Productions, and Infinity Productions had the right and ability to supervise and control DD3's performance.

131. Defendants Marvel, MVLP, Assembled Productions, and Infinity Productions, initiated and scheduled each facial performance capture session with DD3 using copies of the Contour program.

132. For each session, Defendants Marvel, MVLP, Assembled Productions, and Infinity Productions supplied performers to provide facial performances for capture by DD3 using copies of the Contour program.

133. For each session, Defendants Marvel, MVLP, Assembled Productions, and Infinity Productions supplied a director to control and direct the actions of DD3 in providing facial performance capture using copies of the Contour program. Acting as the supervising agent of Defendants Marvel, MVLP, Assembled Productions, and Infinity Productions, the director supervised and controlled DD3's use of copies of the Contour program by starting and terminating each session, starting and stopping each take, ordering DD3 to provide additional takes, and choosing "Selects" (the Contour capture takes which were deemed "good takes" by the director) for further Contour program processing to create Captured Surface and Tracking Mesh output works, all using copies of the Contour program.

134. For each session, Defendants Marvel, MVLP, Assembled Productions, and Infinity Productions, provided various film crew to support and facilitate DD3's facial performance capture using copies of the Contour program. Defendants Marvel, MVLP, Assembled Productions, and

⁴² See, e.g., *Oracle America, Inc. v. Hewlett Packard Enterprise Co.*, 2017 WL 2672113, *2-3 (N.D. Cal. Jan. 19, 2017).

1 Infinity Productions relied on the presence of a clapperboard operated by defendants' film crew in
2 images in the original complaint to show that the facial performance sessions were supervised and
3 controlled by representatives of Defendants Marvel, MVLP, Assembled Productions, and Infinity
4 Productions.⁴³

5 135. Defendants Marvel, MVLP, Assembled Productions, and Infinity Productions
6 received from DD3 and reviewed numerous Contour program output works bearing the Rearden
7 Contour copyright notice.

8 136. After reviewing the Contour program output works from Contour capture takes,
9 Defendants Marvel, MVLP, Assembled Productions, and Infinity Productions chose specific Contour
10 program output works and designated them as "Selects," and caused DD3 to use copies of the
11 Contour program to further process the Selects to create new output works that were used to animate
12 CG characters in *Guardians of the Galaxy* and *Avengers: Age of Ultron*, including at least the
13 Thanos character.

14 137. The contracts between DD3 and defendants Assembled Productions and Infinity
15 Productions, signed by employees and agents of defendants Marvel and/or MVLP, granted them the
16 unrestricted right to terminate the contract with DD3 for breach of its representation and warranty
17 that its services did not infringe any copyright. Accordingly, Defendants Marvel, MVLP, Assembled
18 Productions, and Infinity Productions had the right and ability to supervise and control DD3's
19 infringing acts.

20 138. Defendants Marvel, MVLP, Assembled Productions, and Infinity Productions had an
21 obvious and direct financial interest in exploitation of Rearden's copyright in the Contour program to
22 use the Contour output works to animate CG characters in *Guardians of the Galaxy* and *Avengers:*
23 *Age of Ultron*, including at least the Thanos character. Defendants Marvel, MVLP, Assembled
24 Productions, and Infinity Productions believed that Contour facial performance motion capture
25 would make the Thanos CG character more believable and compelling, which would in turn draw a
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28 ⁴³ *Id.* at 8:4-15.

1 wider audience to the films. And Defendants Marvel, MVLP, Assembled Productions, and Infinity
2 Productions shared the risk, costs, and profits from the films.

3 139. Defendants Marvel, MVLP, Assembled Productions, and Infinity Productions did not
4 exercise their right and ability to supervise or control DD3's infringements.

5 140. Defendants Marvel, Assembled Productions, and Infinity Productions are liable to
6 plaintiffs for their acts of vicarious copyright infringement. Defendant MVLP is liable to plaintiffs
7 for the acts of vicarious copyright infringement of defendants Assembled Productions and Infinity
8 Productions because they are alter egos of MVLP.

9 141. Accordingly, Defendants Marvel, MVLP, Assembled Productions, and Infinity
10 Productions, and each of them, are jointly and severally vicariously liable to Rearden for each of
11 DD3's direct infringements.

12 ***Defendants' Contributory Copyright Infringement***⁴⁴

13 142. Defendants Marvel, MVLP, Assembled Productions, and Infinity Productions knew
14 or should have known of DD3's specific acts of infringement, and induced, caused, and materially
15 contributed to DD3's infringement.

16 143. Defendants Marvel, MVLP, Assembled Productions, and Infinity Productions knew
17 or should have known of DD3's acts of infringement for at least the reasons alleged in paragraphs
18 103, 112, and 121, above, and for those that follow.

19 144. Defendants Assembled Productions and Infinity Productions, through employees and
20 agents of Marvel and/or MVLP, contracted with DD3 for facial performance capture services and
21 output works using copies of the Contour program for Disney MPG's films *Guardians of the Galaxy*
22 and *Avengers: Age of Ultron*.

23 145. Defendants Marvel, MVLP, Assembled Productions, and Infinity Productions
24 initiated and scheduled each facial performance capture session with DD3 using copies of the
25 Contour program.

26
27 ⁴⁴ See, e.g., *Oracle America, Inc. v. Hewlett Packard Enterprise Co.*, 2016 WL 3951653, *5-6
28 (N.D. Cal. July 22, 2016)

1 146. Each of the requests for facial performance captures caused DD3 to use the Contour
2 program, which created an infringing copy of the program for non-transitory duration in the RAM of
3 Contour system computers.

4 147. For each session, Defendants Marvel, MVLP, Assembled Productions, and Infinity
5 Productions supplied performers to provide facial performances for capture by DD3 using copies of
6 the Contour program.

7 148. For each session, Defendants Marvel, MVLP, Assembled Productions, and Infinity
8 Productions supplied a director to control and direct the actions of DD3 in providing facial
9 performance capture using copies of the Contour program. Acting as supervising agent of
10 Defendants Marvel, MVLP, Assembled Productions, and Infinity Productions, the director
11 supervised and controlled DD3's use of copies of the Contour program by starting and terminating
12 each session, starting and stopping each take, ordering DD3 to provide additional takes, and
13 choosing "Selects" (the Contour capture takes which were deemed "good takes" by the director) for
14 further Contour program processing to create Captured Surface and Tracking Mesh output works, all
15 using copies of the Contour program.

16 149. For each session, Defendants Marvel, MVLP, Assembled Productions, and Infinity
17 Productions provided various film crew to support and facilitate DD3's facial performance capture
18 using copies of the Contour program. Defendants Marvel, MVLP, Assembled Productions, and
19 Infinity Productions relied on the presence of a clapperboard operated by defendants' film crew in
20 images in the original complaint to show that the facial performance sessions were supervised and
21 controlled by representatives of Defendants Marvel, MVLP, Assembled Productions, and Infinity
22 Productions.

23 150. Defendants Marvel, MVLP, Assembled Productions, and Infinity Productions
24 received from DD3 and reviewed numerous Contour program output works bearing the Rearden
25 Contour copyright notice.

26 151. After reviewing the Contour program output works from the Contour capture takes,
27 Defendants Marvel, MVLP, Assembled Productions, and Infinity Productions chose specific Contour
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1 works and designated them as “Selects,” and caused DD3 to use the Contour program to further
2 process the Selects to create new output works that were used to animate CG characters in *Guardians*
3 *of the Galaxy* and *Avengers: Age of Ultron*, including at least the Thanos character.

4 152. Each of Defendants Marvel, MVLP, Assembled Productions, and Infinity
5 Productions’ requests for further processing of defendants’ selected Contour output works caused
6 DD3 to use the Contour program, which created an infringing copy of the program for non-transitory
7 duration in the RAM of Contour system computers.

8 153. Accordingly, defendants Marvel, MVLP, Assembled Productions, and Infinity
9 Productions, knew or should have known of DD3’s direct infringements and intentionally materially
10 contributed to DD3’s direct infringements. They and each of them are contributory infringers of
11 Rearden’s copyright in the Contour program, and they are jointly and severally liable to Rearden for
12 each of DD3’s direct infringements.

13 154. The acts of vicarious and/or contributory copyright infringement by defendants
14 Marvel, MVLP, Assembled Productions, and Infinity Productions were, and are, willful, intentional,
15 purposeful, and knowing, in that defendants at all material times knew or should have known that the
16 copyright in the Contour program has been, and is, owned by Rearden, or were in reckless disregard
17 of or willfully blind to Rearden’s copyright, and defendants have acted in knowing disregard of and
18 indifference to Rearden’s rights.

19 155. Defendants Marvel, Assembled Productions, and Infinity Productions are liable to
20 plaintiffs for their acts of contributory copyright infringement. Defendant MVLP is liable to
21 plaintiffs for the acts of contributory copyright infringement of defendants Assembled Productions
22 and Infinity Productions because they are alter egos of MVLP.

23 155. Rearden has been harmed as the direct and proximate result of the foregoing acts of
24 copyright infringement. Plaintiffs are entitled to actual damages, profits of the infringers, and all
25 such other remedies as may be available under the Copyright Act.

**SECOND CAUSE OF ACTION:
VICARIOUS AND CONTRIBUTORY COPYRIGHT INFRINGEMENT
(DEFENDANTS DISNEY ENTERPRISES, DISNEY PICTURES PRODUCTION, DISNEY
PICTURES, AND CHIP PICTURES)**

156. Plaintiffs reallege and incorporate each and every allegation contained in the paragraphs above with the same force and effect as if they were fully set forth here.

Rearden's Copyright in the Contour Program

157. The Contour program is an original literary work of authorship by Rearden-employed programmers.

158. The Contour program was fixed in a tangible medium of expression when it was completed and stored in non-volatile computer memory and/or media such as computer hard drives, CD, CD-R, DVD, or Blu-ray disks from which it may be perceived, reproduced, or otherwise communicated for a period of more than transitory duration. Accordingly, the Contour program is a valid subject of copyright protection.

159. Rearden's programmers duly assigned their copyrights in the Contour program to Rearden. At the times of all acts of infringement alleged herein, Plaintiff Rearden Mova was and is the owner of the intellectual property and copyright vested in the Contour program, and the United States Copyright Registration No. TXu001977151 for the Contour program.

DD3's Direct Infringement of Rearden's Copyright

160. Each time that DD3 operated the Contour apparatus, the computers made an unauthorized copy of the Contour program in their central processing unit's ("CPU") random access memory ("RAM"). Each such copy is a violation of Rearden's exclusive right to authorize copies of its Contour program under 17 U.S.C. § 106 (1), and therefore each copy is an act of direct copyright infringement by DD3.

***Defendants' Vicarious Liability for DD3's Copyright Infringement*⁴⁵**

161. Defendant Chip Pictures, through employees and agents of Disney Pictures Production and/or Disney Pictures, contracted with DD3 to provide facial performance capture

⁴⁵ See, e.g., *Oracle America, Inc. v. Hewlett Packard Enterprise Co.*, 2017 WL 2672113, *2-3 (N.D. Cal. Jan. 19, 2017).

1 services and output works using copies of the Contour program for Disney MPG's film *Beauty and*
2 *the Beast*. At all material times during DD3's performance of the facial performance capture
3 contract, Disney Pictures Production, Disney Pictures, and Chip Pictures had the right and ability to
4 supervise and control DD3's performance.

5 162. Disney Pictures Production, Disney Pictures, and Chip Pictures initiated and
6 scheduled each facial performance capture session with DD3 using copies of the Contour program.

7 163. For each session, Disney Pictures Production, Disney Pictures, and Chip Pictures
8 supplied performers to provide facial performances for capture by DD3 using copies of the Contour
9 program.

10 164. For each session, Disney Pictures Production, Disney Pictures, and Chip Pictures
11 supplied a director to control and direct the actions of DD3 in providing facial performance capture
12 using copies of the Contour program. Acting as the supervising agent of defendants Disney Pictures
13 Production, Disney Pictures, and Chip Pictures, the director supervised and controlled DD3's use of
14 copies of the Contour program by starting and terminating each session, starting and stopping each
15 take, ordering DD3 to provide additional takes, and choosing "Selects" (the Contour capture takes
16 which were deemed "good takes" by the director) for further Contour program processing to create
17 Captured Surface and Tracking Mesh output works, all using copies of the Contour program.

18 165. For each session, Disney Pictures Production, Disney Pictures, and Chip Pictures
19 provided various film crew to support and facilitate DD3's facial performance capture using copies
20 of the Contour program. Defendants Disney Pictures Production, Disney Pictures, and Chip Pictures
21 relied on the presence of a clapperboard operated by defendants' film crew in images in the original
22 complaint to show that the facial performance sessions were supervised and controlled by persons
23 provided by defendants Disney Pictures Production, Disney Pictures, and Chip Pictures.⁴⁶

24 166. Disney Pictures Production, Disney Pictures, and Chip Pictures received from DD3
25 and reviewed numerous Contour program output works bearing the Rearden Contour copyright
26 notice.

27
28 ⁴⁶ *Id.* at 8:4-15.

1 167. After reviewing the Contour program output works from Contour capture takes,
2 Disney Pictures Production, Disney Pictures, and Chip Pictures chose specific Contour works and
3 designated them as Selects, and caused DD3 to use copies of the Contour program to further process
4 the Selects to create new output works that were used to animate CG characters in *Beauty and the*
5 *Beast*, including at least the Beast character.

6 168. The contract between DD3 and Disney Pictures Production, Disney Pictures, and
7 Chip Pictures granted them the unrestricted right to terminate the contract with DD3 for breach of its
8 representation and warranty that its services did not infringe any copyright. Accordingly, Disney
9 Pictures Production, Disney Pictures, and Chip Pictures had the right and ability to supervise or
10 control DD3's infringing acts.

11 169. Defendants Disney Pictures Production, Disney Pictures, and Chip Pictures had an
12 obvious and direct financial interest in exploitation of Rearden's copyright in the Contour program to
13 use the Contour output works to animate CG characters in *Beauty and the Beast*, including at least
14 the romantic lead character Beast. Disney MPG and Mandeville regarded the Contour program's
15 faithful tracking of Dan Stevens's performance as critical to the believability of the CG Beast
16 character to filmgoers, and thus would draw a wider audience to the film. Defendant Disney Pictures
17 booked the profits from the films.

18 170. Defendants Chip Pictures, Disney Pictures Production, and Disney Pictures are liable
19 to plaintiffs for their acts of vicarious copyright infringement. Defendant Disney Enterprises is liable
20 to plaintiffs for the acts of vicarious copyright infringement of defendant Chip Pictures because it is
21 the alter ego of Disney Enterprises.

22 171. Accordingly, defendants Disney Enterprises, Disney Pictures Production, Disney
23 Pictures, and Chip Pictures, and each of them, are jointly and severally vicariously liable to Rearden
24 for each of DD3's direct infringements.

Defendants' Contributory Copyright Infringement⁴⁷

172. Defendants Disney Enterprises, Disney Pictures Production, Disney Pictures, and Chip Pictures knew or should have known of DD3's specific acts of infringement, and induced, caused, and materially contributed to DD3's infringement.

173. Defendants Disney Enterprises, Disney Pictures Production, Disney Pictures, and Chip Pictures knew or should have known of DD3's acts of infringement for at least the reasons alleged in paragraphs 103, 112, and 121, above, and those that follow.

174. Defendants Disney Pictures Production, Disney Pictures, and Chip Pictures contracted with DD3 for facial performance capture services and output works using copies of the Contour program for Disney MPG's film *Beauty and the Beast*.

175. Defendants Disney Pictures Production, Disney Pictures, and Chip Pictures initiated and scheduled each facial performance capture session with DD3 using copies of the Contour program.

176. Each of the requests for facial performance captures caused DD3 to use the Contour program, which created an infringing copy of the program for non-transitory duration in the RAM of Contour system computers.

177. For each session, Disney Pictures Production, Disney Pictures, and Chip Pictures supplied performers to provide facial performances for capture by DD3 using copies of the Contour program.

178. For each session, Disney Pictures Production, Disney Pictures, and Chip Pictures supplied a director to supervise and direct the actions of DD3 in providing facial performance capture using copies of the Contour program. Acting as supervising agent of Disney Pictures Production, Disney Pictures, and Chip Pictures, the director supervised and controlled DD3's use of copies of the Contour program by starting and terminating each session, starting and stopping each take, ordering DD3 to provide additional takes, and choosing "Selects" (the Contour capture takes

⁴⁷ See, e.g., *Oracle America, Inc. v. Hewlett Packard Enterprise Co.*, 2016 WL 3951653, *5-6 (N.D. Cal. July 22, 2016)

1 which were deemed “good takes” by the director) for further Contour program processing to create
2 Captured Surface and Tracking Mesh output works, all using copies of the Contour program to
3 capture the performer’s facial performance.

4 179. For each session, Disney Pictures Production, Disney Pictures, and Chip Pictures
5 provided various film crew to support and facilitate DD3’s facial performance capture. Disney
6 Pictures Production, Disney Pictures, and Chip Pictures relied on the presence of a clapperboard
7 operated by defendants’ film crew in images in the original complaint to show that the facial
8 performance sessions were superintended and directed by persons provided by Disney Pictures
9 Production, Disney Pictures, and Chip Pictures.

10 180. Disney Pictures Production, Disney Pictures, and Chip Pictures received from DD3
11 and reviewed numerous Contour program output works bearing the Rearden Contour copyright
12 notice.

13 181. After reviewing the Contour program output works from Contour capture takes,
14 Disney Pictures Production, Disney Pictures, and Chip Pictures chose specific Contour works and
15 designated them as “Selects,” and caused DD3 to use the Contour program to further process the
16 Selects to create new output works that were used to animate CG characters in *Beauty and the Beast*,
17 including at least the Beast character.

18 182. Each of defendants Disney Pictures Production, Disney Pictures, and Chip Pictures’
19 requests for further processing of defendants’ selected Contour output works caused DD3 to use the
20 Contour program, which created an infringing copy of the program for non-transitory duration in the
21 RAM of Contour system computers.

22 183. Defendants Chip Pictures, Disney Pictures Production, and Disney Pictures are liable
23 to plaintiffs for their acts of contributory copyright infringement. Defendant Disney Enterprises is
24 liable to plaintiffs for the acts of contributory copyright infringement of Chip Pictures because Chip
25 Pictures is the alter ego of Disney Enterprises.

26 184. Accordingly, defendants Disney Enterprises, Disney Pictures Production, Disney
27 Pictures, and Chip Pictures, knew or should have known of DD3’s direct infringements and
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1 intentionally materially contributed to DD3's direct infringements. They and each of them are
2 contributory infringers of Rearden's copyright in the Contour program, and they are jointly and
3 severally liable to Rearden for each of DD3's direct infringements.

4 185. The acts of vicarious and/or contributory copyright infringement by Defendants were,
5 and are, willful, intentional, purposeful and knowing, in that defendants at all material times knew or
6 should have known that the copyright in the Contour program has been, and is, owned by Rearden,
7 or were in reckless disregard of or willfully blind to Rearden copyrights, and defendants have acted
8 in knowing disregard of and indifference to the Rearden's rights.

9 186. Rearden has been harmed as the direct and proximate result of the foregoing acts of
10 copyright infringement. Plaintiffs are entitled to actual damages, profits of the infringers, and all
11 such other remedies as may be available under the Copyright Act.

12 **THIRD CAUSE OF ACTION: TRADEMARK INFRINGEMENT, FALSE ADVERTISING**
13 **AND DILUTION**
14 **(DEFENDANTS DISNEY ENTERPRISES, CHIP PICTURES, DISNEY PICTURES**
15 **PRODUCTION, DISNEY PICTURES, MVLP, INFINITY PRODUCTIONS, AND MARVEL)**

16 187. Plaintiffs reallege and incorporate each and every allegation contained in the
17 paragraphs above with the same force and effect as if said allegations were fully set forth herein.

18 188. At all material times, plaintiff Rearden Mova was the owner of U.S. Registration No.
19 3,843,152 for the MOVA mark.

20 189. MOVA is an arbitrary or fanciful mark that is inherently distinctive.

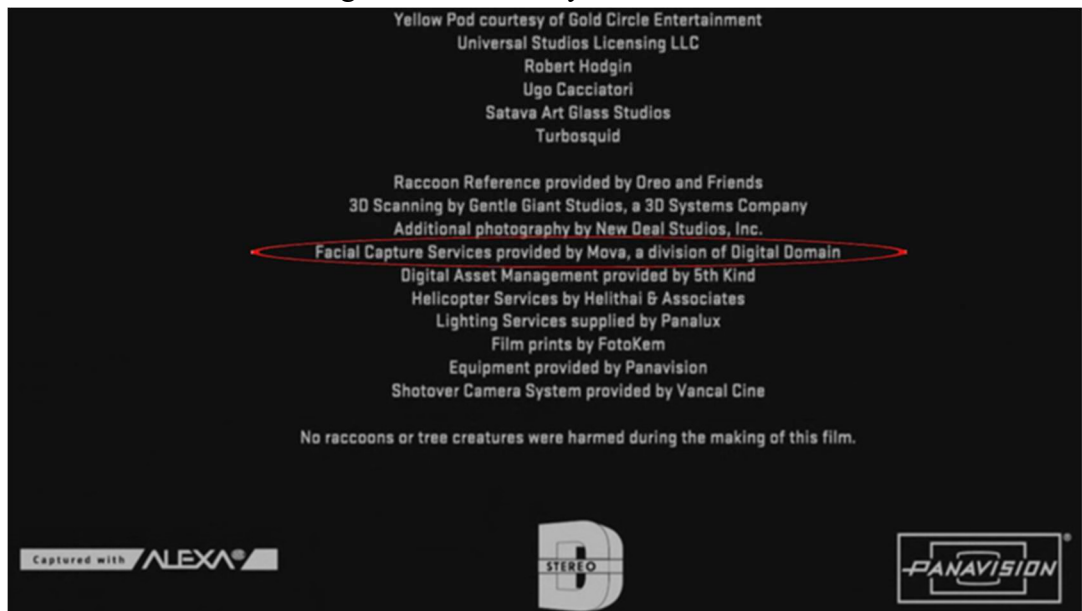
21 190. Since at least 2006, Rearden Mova and its predecessors in interest have used the
22 MOVA mark in commerce in connection with the marketing, promotion, and sales of facial
23 performance capture services and output files to the motion picture and video game industry,
24 including major motion picture studios and VFX studios.

25 191. Through the marketing, promotion, and sales efforts of Rearden Mova and its
26 predecessors in interest from 2005 through the present, and through the widespread publicity of and
27 industry acclaim for the MOVA Contour facial performance capture technology and services offered
28 by Rearden Mova and its predecessors in interest, Rearden Mova's MOVA mark has acquired

secondary meaning indicating that Rearden is the exclusive origin of the MOVA Contour facial performance capture technology and services.

192. Without authorization, defendants MVLP, Infinity Productions, and/or Marvel used Rearden Mova's MOVA mark in commerce in the credits on their *Guardians of the Galaxy* film, stating that "Facial motion capture services were provided by Mova, a division of Digital Domain," as shown below:

193. The above statement includes a reproduction of the registered MOVA mark in connection with the distribution of goods that is likely to cause confusion, or to cause mistake, or to



deceive the consuming public in violation of 15 U.S.C. § 1114(1).

194. The above statement is a literally false designation of origin and/or a literally false or misleading description of fact or misleading representation of fact that is likely to cause confusion, mistake or to deceive as to affiliation, connection, association or sponsorship of defendants' goods with Rearden Mova and its predecessors in interest, that has misled, confused, or deceived the consuming public in violation of 15 U.S.C. § 1125(a).

195. Plaintiff and their predecessors in interest have been damaged by the above unauthorized use of their MOVA mark and defendants' false or misleading representations.

196. Without authorization, Disney Enterprises, Chip Pictures, Disney Pictures Production, Disney Pictures, MVLP, Infinity Productions, and/or Marvel, acting either directly or through

1 entities subject to their supervision and control, used Rearden's MOVA mark in commerce in
2 connection with commercial advertising and promotion of its *Guardians of the Galaxy* and *Beauty*
3 *and the Beast* films, including press kits, press releases, press conferences, and other advertising and
4 promotional activities.

5 197. The above-referenced unauthorized uses of Rearden's MOVA mark included
6 reproductions of the registered MOVA mark in connection with the distribution of goods that are
7 likely to cause confusion, or to cause mistake, or to deceive the consuming public in violation of 15
8 U.S.C. § 1114(1).

9 198. The above-referenced unauthorized uses of Rearden's MOVA mark constitute
10 literally false designations of origin and/or literally false or misleading descriptions of fact or
11 misleading representations of fact that are likely to cause confusion, mistake or to deceive as to
12 affiliation, connection, association or sponsorship of defendants' goods with Rearden Mova and its
13 predecessors in interest, that have misled, confused, or deceived the consuming public in violation of
14 15 U.S.C. § 1125(a).

15 199. The above-referenced unauthorized use of Rearden Mova's MOVA mark constitute
16 dilution by blurring in violation of 15 U.S.C. § 1125(c).

17 200. At the time that defendants used Rearden's MOVA mark in connection with *Beauty*
18 *and the Beast*, at least defendants Disney Pictures Production and Chip Pictures had received and
19 reviewed the SHST preliminary injunction that prohibited DD3 and its customers including
20 defendants from using the MOVA mark. Therefore, defendants' unauthorized use of Rearden
21 Mova's MOVA mark in commerce in connection with promotion and distribution of at least *Beauty*
22 *and the Beast* was with actual knowledge or willful disregard of Rearden Mova's rights, with intent
23 to cause confusion, mistake, or deception.

24 201. Plaintiffs and their predecessors in interest have been damaged by the above use of
25 their MOVA mark and defendants' false or misleading representation.

DEMAND FOR JURY TRIAL

Pursuant to Fed. R. Civ. P. 38(b), plaintiff demands trial by jury of all issues so triable under the law.

DATED: July 6, 2022

HAGENS BERMAN SOBOL SHAPIRO LLP

By /s/ Steve Berman
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